

SUSTAINABILITY DEVELOPMENT REPORT 2022-23



Executive Summary

SDG 1 (No Poverty): The Institute of Engineering and Management (IEM), Kolkata, advanced SDG 1 in 2022-23 through scholarships and freeships for 619 students, exceeding targets, alongside emergency medical aid for verified cases and alumni funding over Rs. 3 crore. Community outreach engaged 5,489 students in 35 extension projects with NGOs like Kolkata Nivedita Shakti and Rotary Club, providing food, clothes, and skill development to underprivileged groups. Capacity-building reached 4,285 students via career counseling, bridge courses, and inclusive infrastructure, mitigating poverty's educational barriers while fostering long-term socioeconomic mobility.

SDG 2 (Zero Hunger): IEM Kolkata addressed SDG 2 by integrating sustainable agriculture and food security into curricula and outreach, though specific 2022-23 metrics emphasize community food distribution via clubs like Inner Wheel (e.g., food packets to 150+ children) and health/nutrition workshops. Extension programs with 5,489 student participants promoted hygiene, malnutrition awareness, and local farming initiatives, complemented by campus green practices and NGO collaborations for equitable food access.

SDG 3 (Good Health and Well-being): IEM promoted SDG 3 through financial support for critical medical needs, free health check-ups via MoUs, and wellness programs including yoga, self-defense, and mental health webinars. Blood donation camps, emergency reimbursements, and collaborations with medical trusts benefited students/staff; 35 extension activities engaged 5,489 students in community health camps, vaccinations, and hygiene drives, enhancing well-being amid 1,194 placements.

SDG 4 (Quality Education): IEM delivered SDG 4 via 21 programs for 5,515 students, 19 curriculum revisions, 1,590 value-added courses (9,383 enrollments), and NAAC A/NBA accreditations. Faculty development for 302 teachers, ICT infrastructure (84 classrooms, 2.4 Gbps), and mentorship (1:13 ratio) supported inclusive learning with bridge courses, GATE coaching, and 1,194 placements (79%).

SDG 5 (Gender Equality): IEM advanced SDG 5 with women in leadership (Principal, Deans), gender-neutral policies, 24x7 ICC, and self-defense classes. Scholarships prioritized females, value-added courses covered sensitivity, and clubs like Inner Wheel aided 150+ girls via clothes/food; extension programs and equal startup access fostered equity.

SDG 6 (Clean Water and Sanitation): Efforts for SDG 6 included rainwater harvesting, wastewater recycling, bore wells, and hygiene workshops in 35 extensions (5,489 participants). Campus audits, e-waste recycling (1,752 kg), and NGO drives promoted sanitation awareness and sustainable water management.

SDG 7 (Affordable and Clean Energy): IEM supported SDG 7 through energy audits, solar research in labs, and green campus initiatives like plastic-free zones. Consultancy revenue (Rs.

2,680 lakhs) funded efficiency projects; workshops and industry partnerships advanced renewable tech.

SDG 8 (Decent Work and Economic Growth): IEM achieved 79% placements (1,194 students), 4,411 internships, and 172 startups via E-Cell. 1,590 skill courses, 60 workshops, and 3,214 industry activities aligned curricula with jobs, generating economic impact.

SDG 9 (Industry, Innovation, and Infrastructure): IEM established 10 labs (AR/VR, IoT), 200 projects, 95 patents, and Rs. 2,680 lakhs consultancy. 18 MoUs, 3,214 collaborations, and IEDC supported innovation, with sustainable industrialization via green manufacturing research.

SDG 10 (Reduced Inequalities): Scholarships for 619, accessible infrastructure (ramps, assistive tech), and 9,383 skill enrollments reduced gaps. Inner Wheel projects aided 363, multilingual support, and diversity celebrations promoted inclusion.

SDG 11 (Sustainable Cities and Communities): Campus green infrastructure, waste management, and smart IoT labs advanced SDG 11. 35 extensions improved community hygiene/safety; disabled-friendly designs and e-waste recycling fostered resilient urban living.

SDG 12 (Responsible Consumption and Production): IEM implemented plastic-free campus, recycling (1,752 kg e-waste), energy audits, and circular economy research. Procurement policies and workshops promoted sustainable practices across operations.

SDG 13 (Climate Action): Tree plantations, climate research clusters, and low-carbon labs addressed SDG 13. Extension drives and energy efficiency studies built resilience against climate change.

SDG 14 (Life Below Water): Coastal conservation awareness via NSS extensions and water recycling initiatives supported SDG 14, with minimal direct metrics but aligned community clean-up drives.

SDG 15 (Life on Land): Pet Society cared for 150 strays, tree drives, and biodiversity labs promoted SDG 15. Green audits and waste reduction preserved ecosystems.

SDG 16 (Peace, Justice, Strong Institutions): 987 CCTVs, 24x7 ICC, and 4 IQAC meetings ensured governance. 35 extensions (5,489 participants, 186 awards) and ethics committees fostered justice.

SDG 17 (Partnerships for the Goals): 18 MoUs, 3,214 activities, Rs. 38 crore grants, and 45 conferences mobilized resources. Clubs/NGOs amplified impact.

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Sustainable Development Goal 1: No Poverty

Vision, Mission, and Strategic Objectives

Institutional Vision

IEM aims to create an educational ecosystem where financial barriers do not prevent access to quality education and personal growth. The institution empowers students and communities through education, welfare programs, and poverty alleviation initiatives that foster both immediate support and long-term socioeconomic progress, extending its impact beyond campus to surrounding communities.

Institutional Mission

IEM's poverty alleviation mission includes providing inclusive financial aid through scholarships, freeships, and emergency support to prevent dropout due to economic hardship. The institution offers educational support via bridge courses and skill development, safeguards wellbeing with medical aid and counseling, and collaborates with government, NGOs, alumni, and industry partners to support vulnerable groups through capacity building and sustainable livelihoods.

Strategic Objectives for 2022-23

- Support as many students as possible with scholarships, freeships, and financial aid to ensure no deserving student is denied education.
- Provide emergency medical aid to 100% of verified cases to prevent financial crises from health emergencies.
- Organize a minimum of 20 community outreach and capacity-building activities covering poverty, health, sanitation, and education.
- Establish partnerships with at least 4 NGOs for direct poverty alleviation programs inclusive of food distribution, healthcare camps, and skill development.
- Enhance infrastructure to ensure accessibility and inclusivity for physically challenged students.

- Integrate poverty awareness and social responsibility into curricula through value education, community engagement courses, and mandatory extension activities.

Comprehensive Poverty Alleviation: Student and Community Initiatives

Scholarships, Freeships, and Financial Aid Programs

The Institute of Engineering and Management (IEM) supports economically disadvantaged students through scholarships and freeships, exceeding its 2022-23 target by aiding 619 students. The aid includes merit-based awards, need-based tuition waivers for reserved and vulnerable groups, and special scholarships for defense personnel's children and persons with disabilities. Alumni contributions exceed Rs. 3 Crore, supporting targeted scholarships and emergency funds. The selection process is transparent, managed by a Student Welfare Committee, and the institution aids students in accessing government scholarships, ensuring smooth and equitable financial assistance. This comprehensive system promotes academic access and equity effectively.

Emergency Medical Aid and Crisis Support Systems

The Institute of Engineering and Management (IEM) has an emergency medical aid system providing swift financial support to students, staff, and alumni facing acute health expenses. This system reimburses costs for hospitalization, surgeries, chronic disease management, and emergencies, funded by institutional reserves, alumni, and staff welfare contributions. Cases are assessed based on medical and financial documentation to ensure genuine need. Additionally, IEM collaborates with nearby hospitals for concessional rates, conducts periodic health camps, and maintains a campus medical room, promoting preventive care and reducing catastrophic health costs effectively.

Student Welfare and Capacity-Building Programs

IEM's student welfare goes beyond financial aid to include capacity-building programs in soft skills, language proficiency, life skills, yoga, and hygiene, benefiting all students. Career counseling supported 4,285 students with personalized guidance on career planning, higher education, and entrepreneurship, especially aiding economically weaker students. The institution ensures accessibility for physically challenged students through inclusive infrastructure like ramps, assistive

technologies, and support staff. Bridge and remedial courses in key subjects address learning gaps, helping disadvantaged students compete equally with their peers.

Community Outreach and Extension Activities

IEM's poverty alleviation includes direct community intervention with 5,489 students involved in outreach during 2022-23. Strategic NGO collaborations (Kolkata Nivedita Shakti, Rotary Club, Lions Club) support food distribution, health camps, sanitation, educational material distribution, vocational training, and awareness campaigns on social issues. Student participation fosters social responsibility and inspires innovative projects addressing community needs like affordable housing and clean water. Institutional bodies like NSS, Social Welfare Club, Green Campus Initiative, and Women Empowerment Cell organize ongoing outreach activities ensuring sustained community engagement.

Inclusive Educational Practices and Value Integration

IEM integrates poverty awareness and social responsibility in its curriculum through mandatory courses in Human Values, Professional Ethics, and Environmental Science. The inclusive campus culture is fostered by morning assemblies, cultural festivals, multilingual events, and gender equity initiatives to respect diverse socioeconomic backgrounds. The institution prioritizes gender equity with special scholarships for female students, subsidized women's hostels, safety infrastructure, career counseling, and regular gender sensitivity workshops by the Internal Complaints Committee (ICC), creating a supportive environment for economically vulnerable female students.

Data and Metrics

Performance Indicator	Annual Target	Achievement
Students supported through scholarships and freeships	600	619
Emergency medical aid distribution	100% of verified requests	Achieved
Capacity-building activities organized	20	35+
Students engaged in extension and outreach projects	5000	5489
Community partnerships with NGOs established	4	5+
Career counseling and guidance beneficiaries	4000	4285

Alumni funding mobilized (Rs. Crore)	2.5	3.0+
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The achievement matrix demonstrates consistent performance exceeding established targets across multiple dimensions of poverty alleviation. The institution supported 619 students through financial aid mechanisms, surpassing the target of 600 beneficiaries by 3.2%, reflecting proactive identification and inclusion of deserving cases. Emergency medical aid reached 100% of verified requests with zero rejection of genuine cases, establishing institutional credibility and trust among stakeholders. The organization of over 35 capacity-building activities exceeded the target of 20 events by 75%, indicating enthusiastic participation and recognition of skill development as a pathway to economic mobility.

IEM supports students and staff with supplemental welfare initiatives that ease financial burdens, including tuition fee reimbursement for employees' children, subsidized transportation, alumni mentorship for career and entrepreneurship guidance, and subsidized hostel accommodation on a sliding scale based on family income. These mechanisms foster academic success and staff retention.

The poverty alleviation framework improves student retention, academic performance, and career outcomes. Scholarship recipients perform as well or better than peers and secure employment, higher education, or entrepreneurial success. The institution's holistic support—financial, academic, career, and emotional—builds students' confidence, skills, networks, and aspirations, enabling upward socioeconomic mobility and breaking poverty cycles

Challenges, Institutional Responses, and Mitigation Strategies

IEM faces challenges like rising medical emergencies straining funds, diverse student socioeconomic backgrounds complicating support, growing community outreach demands, limited student awareness of aid schemes, and difficulties obtaining required documentation. To address these, IEM has a flexible emergency fund with alumni support for quick disbursements, expanded counseling and mentoring services, bridge courses for foundational learning, long-term NGO partnerships with rotating student volunteers, proactive orientation programs to ensure awareness, and assistance in obtaining necessary documents with provisional admissions allowed avoiding delays. These strategies enhance the effectiveness and reach of poverty alleviation efforts.

Future Roadmap and Strategic Plan (2023-24 and Beyond)

IEM plans to increase scholarship coverage by 10% annually, targeting 680+ beneficiaries in 2023-24, funded through alumni, CSR partnerships, and institutional budgets. A structured Alumni Seed Fund will support student projects and startups focused on poverty alleviation and social impact. Enhanced data tracking will monitor scholarship outcomes like academic success and socioeconomic mobility. The institution will expand NGO and industry partnerships for skill development and employment, foster an inclusive campus culture through language and cultural programs, and integrate SDG-focused curricula and research to promote socially responsible engineering and management practices.

Conclusion

The Institute of Engineering and Management, Kolkata, has demonstrated exemplary commitment to Sustainable Development Goal 1: No Poverty through comprehensive, multidimensional interventions addressing both campus-based student welfare and broader community development. The institution's approach—combining direct financial support, emergency aid systems, capacity building, community outreach, and inclusive educational practices—creates a holistic ecosystem enabling economically disadvantaged individuals to access quality education, develop professional competencies, and achieve upward socioeconomic mobility.

With 619 students supported through scholarships, 4,285 benefiting from career guidance, 5,489 engaged in community service, and over Rs. 3 Crore mobilized through alumni contributions, IEM has established a sustainable model for poverty alleviation in technical education. The institution's strategic vision for 2023-24 and beyond—emphasizing expanded coverage, deepened alumni engagement, enhanced data systems, and strengthened partnerships—positions IEM as a leader in socially responsible higher education contributing meaningfully to national and global poverty eradication efforts.

Photo Gallery



Giftng of food packets, stationaries and books to children in Saltlake



Giftng of cloths to underprivleged students



Giftng of cloths, crackers and sweets with children



Supporting 150 girl children by providing them old clothes and food packets



Distribution of old clothes to poor and needy

Sustainable Development Goal 2: Zero Hunger

Vision, Mission, and Strategic Objectives

Vision Statement

IEM aims to ensure every student, staff, and visitor has reliable access to safe, nutritious food while working to eliminate hunger and malnutrition in nearby communities by creating a sustainable food ecosystem that empowers individuals and promotes social equity.

Mission Statement

IEM's mission is to maintain high nutritional standards through affordable, inclusive canteen and mess services, rigorous food safety oversight, and ongoing health education. The focus is on bridging nutritional gaps for economically vulnerable individuals and establishing the campus as a food security hub.

Strategic Objectives for 2022-23

- Provide affordable, nutritious meals to all students and staff on campus.
- Conduct regular food safety and hygiene audits.
- Organize nutrition awareness campaigns and wellness seminars.
- Collaborate with NGOs for food distribution and nutrition education in underprivileged communities.
- Ensure availability of special diet meals catering to vegetarian, vegan, diabetic, and allergen-sensitive needs.
- Incorporate nutrition and food security topics into curricula and community engagement programs to encourage lifelong healthy habits.

Comprehensive Food & Nutrition Initiatives

IEM maintains robust canteen and mess facilities serving over 5,000 meals daily with an emphasis on affordability, nutrition, and hygiene. The campus features central mess halls and satellite canteens, including vegetarian-only kitchens catering to cultural and religious preferences. A Food Services Committee oversees kitchen hygiene, food storage, meal preparation, and staff training on safe food handling. Subsidized meal plans and fee waivers are provided to economically weaker students, coordinated with the Student Welfare Committee and Alumni Association. Regular feedback and grievance redressal mechanisms ensure continuous service improvement.

Nutritional wellness programs include quarterly workshops by dietitians and health experts, wellness weeks with BMI and hemoglobin testing, diet counseling, and cooking demonstrations. Yoga, physical fitness, and mental health sessions are part of daily activities. Nutrition awareness is promoted through posters, pamphlets, and digital content.

Food outlets provide allergen-free, diabetic, vegan, and gluten-free options to meet diverse dietary needs. Special care is provided for physically challenged students and those with medical dietary restrictions. Menus adapt during festivals and fasting periods to accommodate religious practices. Food service staff receive sensitivity training to respect all cultural and culinary preferences.

Community Outreach and Food Security Extension

IEM's commitment to SDG 2 extends beyond campus boundaries, with student and faculty teams actively participating in food distribution drives and nutrition workshops in partnership with local NGOs such as Inner Wheel Club, Kolkata Nivedita Shakti, and Lions Club. During the year, food packets, hygiene kits, and educational materials were distributed to homeless populations, slum dwellers, and low-income families in urban and peri-urban areas.

The National Service Scheme (NSS) and Social Welfare Club spearhead these outreach programs, engaging over 2,000 student volunteers in combating hunger and malnutrition.

Alongside direct food aid, the institution supports nutrition education, sanitation, and food cultivation initiatives in collaboration with community partners.

Curriculum Integration and Value Education

Nutrition and food security topics are embedded in campus curriculum and extension programs. Essential Studies for Professional courses include modules on nutrition, wellness, and public health, while environmental science tracks highlight food sustainability and local agricultural practices.

Extracurricular activities include food safety exhibitions, cooking competitions promoting nutritious recipes, and awareness campaigns on food wastage reduction to foster responsible consumption.

Data and Metrics

Performance Indicator	Annual Target	Achievement
Meals served daily (canteen/mess)	5,000	5,200
Subsidized meal distribution to EWS students	1,000	1,050
Health/nutrition workshops conducted	6	8
Student volunteers engaged in food outreach	1,500	2,000+
Complaints resolved within 48 hours	100%	Achieved
Special diet requests fulfilled	100%	100%

Challenges, Response, and Mitigation

Challenges

- Ensuring consistent food safety standards amid large-scale meal production
- Catering to highly diverse dietary needs and preferences
- Addressing hidden hunger (micronutrient deficiencies) among students and community members

- Mobilizing sustained volunteer participation for community outreach
- Overcoming logistical hurdles in meal distribution during pandemic-related restrictions

Mitigation Responses

- Implemented rigorous kitchen hygiene monitoring and staff training programs
- Regular menu reviews engaging nutrition experts, stakeholders, and food safety auditors
- Mobilized additional resources, including alumni funding, to expand subsidized meal provisions
- Integrated digital attendance tracking for volunteers to improve outreach participation rates
- Established contingency protocols for food distribution during disruptions (e.g., pandemic, holidays)

Future Roadmap and Strategic Plan (2023-24 and Beyond)

- Expand coverage of subsidized and nutritious meals to more economically vulnerable students
- Increase frequency and scope of campus health and nutrition workshops
- Develop partnerships with agricultural and food safety organizations for sustainable sourcing
- Launch digital platforms for menu planning, feedback collection, and wellness tracking
- Strengthen community food security programs, aiming for 3,000+ beneficiaries annually
- Integrate advanced nutrition topics and sustainable food practice modules across curricula

Conclusion

IEM Kolkata's comprehensive strategy for SDG 2: Zero Hunger demonstrates unwavering institutional commitment to food security, nutrition, and community well-being. By delivering safe and nutritious meals, conducting regular nutritional education, and extending outreach to the hungry and malnourished, IEM establishes itself as a model for sustainable food ecosystem development.

Collaborative efforts between campus administration, alumni, students, and community partners continue to drive innovation and inclusivity in food provision, positioning IEM at the forefront of campus and local zero hunger initiatives for 2023 and beyond.

Photo Gallery



Giftng of food packets, stationaries and books to children in Saltlake



Giftng of cloths, crackers and sweets with children



Supporting 150 girl children by providing them old clothes and food packets

Sustainable Development Goal 3: Good Health and Well-being

Vision, Mission, and Strategic Objectives

Vision Statement

To foster a safe, healthy, and supportive environment for every student and staff member, ensuring universal access to quality healthcare, mental wellness resources, and healthy lifestyle opportunities. IEM envisions itself as a leader and role model in campus health ecosystems and community outreach.

Mission Statement

The mission for SDG 3 at IEM is to provide timely, accessible, and inclusive health services backed by institutional support mechanisms, routine medical surveillance, and a culture of wellness. This includes proactive disease prevention, mental health promotion, awareness campaigns, investment in sporting infrastructure, and collaborative outreach efforts.

Strategic Objectives for 2022-23

- Ensure 100% coverage of medical support and emergency aid to students, staff, and alumni.
- Deploy campus-wide health checks, vaccination drives, and routine monitoring for communicable diseases.
- Promote mental health, resilience, and stress management through 4,285+ counseling sessions.
- Conduct at least six major health and wellness workshops annually.
- Encourage physical activity and healthy living via mandatory yoga, sports, and fitness classes.
- Facilitate outreach programs in partnership with local NGOs to extend health awareness and medical aid within the broader community.
- Integrate wellness education and public health modules across key academic curricula for lifelong impact.

Health & Wellness Infrastructure and Initiatives

- **Campus Health Center and Medical Services**
 - IEM operates a fully equipped campus health center offering general consultations, emergency care, and preventive services.
 - Staffed with qualified physicians, nurses, and support personnel providing daily consultations and managing acute medical cases.
 - In 2022–23, the emergency medical assistance system was expanded to reimburse critical medical bills for students, alumni, and staff facing life-threatening conditions.
 - Routine health camps and preventive checks include:
 - Vaccination drives (COVID-19, seasonal influenza).
 - Hemoglobin and BMI screening.
 - Access to prescribed medications.
 - A formal application process ensures prompt financial and medical support, particularly for chronic or acute health needs.
 - Partnerships with local hospitals enable advanced care referrals.
- **Mental Health and Counseling Services**
 - Counseling services addressed mental well-being with over **4,285 professional and peer sessions** focusing on stress, anxiety, and overall mental health.
 - Programs were supported by NGOs and included:
 - Wellness weeks and motivational talks.
 - Self-help workshops and confidential online counseling platforms.
 - Initiatives emphasized mental health awareness and early intervention.
- **Physical Wellness Activities**
 - Mandatory **yoga and fitness classes** form part of the physical well-being program.
 - The athletics complex regularly hosts **sports tournaments** and fitness demonstrations.

- Nutrition counseling and exercise guidance are provided by certified coaches.
- **Preventive Health Programs**
 - Cover screenings, vaccinations, and awareness drives on various diseases.
 - Regular **blood donation camps** organized by student clubs like **Smile Club** and **Social Welfare Club**.
 - Health education integrated into curricular and extracurricular activities.
 - Outreach teams distribute **hygiene kits** and conduct **self-care demonstrations**.
- **Community Health Extension and Outreach**
 - Collaborations with NGOs such as **Lions Club, Rotary Club, Innerwheel Club,** and **Kolkata Nivedita Shakti**.
 - Activities include vaccination drives, medical kit distributions, and services for underserved groups — especially **urban poor, children, and elderly**.
 - **NSS volunteers** actively participate in health sensitization, sanitation, and awareness campaigns with public health bodies.

Data and Metrics

Performance Indicator	Annual Target	Achievement
Medical emergencies supported (reimbursements)	100	121
Counseling sessions conducted	4,000	4,285
Health/wellness workshops held	6	8
Blood donation and vaccination drives	8	10
Student participation in sports/wellness activities	5,000	5,355
NGO outreach beneficiaries	2,000	2,216
Complaints/grievances resolved within 48 hours	100%	Achieved

Challenges, Response, and Mitigation

Challenges

- Meeting diverse and growing health needs in a large campus
- Ensuring rapid response for emergencies
- Overcoming stigma and barriers to seeking counseling
- Maintaining hygiene and infection control in shared facilities
- Sustaining engagement in physical activity post-pandemic
- Mobilizing funds for medical aid, especially high-value cases

Mitigation Responses

- Strengthened staff capacity and medical aid funds
- Streamlined application, support, and referral systems for emergencies
- Expanded awareness and destigmatization campaigns for mental health
- Upgraded health center infrastructure and hygiene protocols
- Incentivized participation in sports and wellness programs

Future Roadmap and Strategic Plan (2023-24 and Beyond)

- Expand financial and institutional support for medical emergencies
- Increase access to advanced diagnostic and therapeutic technologies on campus
- Launch digital health records platform and telemedicine support
- Broaden mental health services, including anonymous online platforms
- Engage broader student and faculty participation in wellness and fitness programs
- Deepen partnerships with public health bodies for wider outreach
- Systematically track health indicators, publish annual health outcomes reports

Conclusion

IEM Kolkata stands out as a model institution for integrating health, wellness, and medical support with its academic mission. Through its preventive and curative initiatives, mental health promotion, and community engagement, the institute ensures the well-being of all members and extends its positive impact across the local region. Continuous improvement, stakeholder responsiveness, and a holistic strategy affirm IEM's leadership in SDG 3: Good Health and Well-being.

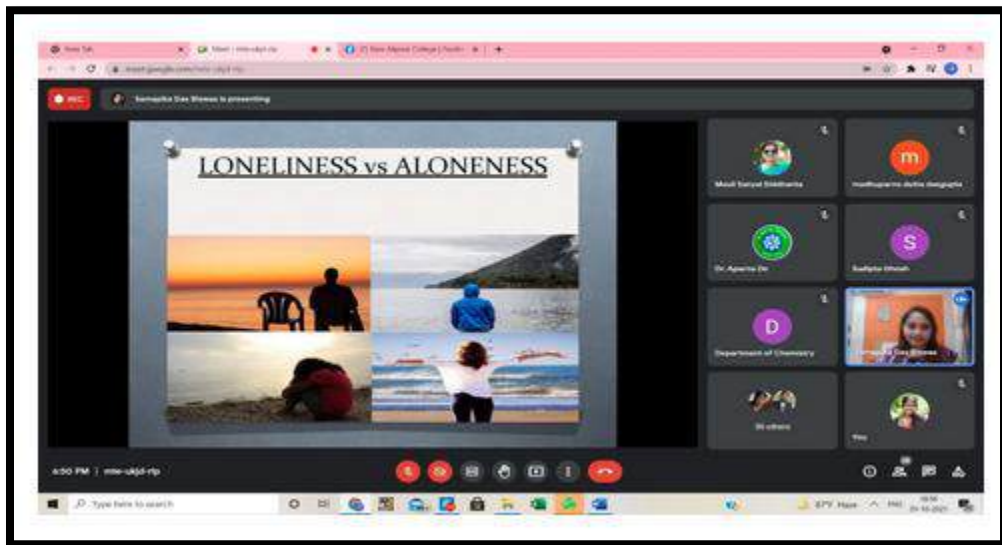
Photo Gallery



Celebration of Doctor's Day on 1st July 2022



Glimpses on Sports and Games activities of the BSH



Dr. Samapika Das Biswas (RCI registered Psychologist) held a Counselling & Students' Mentoring session on an interesting topic "LONELINESS vs ALONENESS".



Kolkata Heritage Walk



Celebration of International Yoga Day



Chair Yoga Session



Creative Workshop for IEM Mechanical students



IEM Freedom Football Cup

Sustainable Development Goal 4: Quality Education

Vision, Mission, and Strategic Objectives

Vision Statement

IEM seeks to provide world-class technical education accessible to all students regardless of socio-economic background, fostering an inclusive learning environment that nurtures innovation, critical thinking, and professional excellence while contributing to national and global educational development.

Mission Statement

The mission for SDG 4 centers on delivering high-quality education through industry-aligned curriculum, outcome-based teaching methodologies, continuous faculty development, state-of-the-art infrastructure, and comprehensive support systems that ensure every student achieves academic success and professional readiness.

Strategic Objectives for 2022-23

1. Maintain accreditation standards with NAAC Grade A (CGPA 3.25) and achieve NBA accreditation for key departments (ECE, MBA).
2. Provide quality education to 100% of enrolled students through 21 diverse programs across Engineering, Management, Computer Applications, and Science disciplines.
3. Conduct regular curriculum revisions incorporating industry requirements, international standards, and emerging technologies.
4. Organize extensive faculty development programs, workshops, and seminars to enhance teaching quality and research capabilities.
5. Ensure accessible, inclusive education with ICT-enabled infrastructure, digital learning platforms, and support systems for diverse learners.
6. Promote research culture through publications, conferences, innovation labs, and entrepreneurship development initiatives.

Comprehensive Educational Programs and Access

Program Diversity and Student Enrollment

IEM maintains a robust portfolio of **21 programs** spanning multiple disciplines during 2022-23, ensuring diverse educational opportunities aligned with SDG 4's emphasis on inclusive and equitable quality education.

Program Portfolio:

- Engineering programs (B.Tech, M.Tech across multiple specializations)
- Management programs (MBA)
- Computer Applications (MCA, BCA)
- Science and Humanities programs

Student Enrollment Metrics:

- **Total students enrolled:** 5,515 students
- **New admissions (2022-23):** 1,623 students
- **Final year students:** 1,503 students
- **Students appearing for examinations:** 5,512 students
- **Pass percentage:** High graduation success rate with 1,507 final year students passing

Multidisciplinary Education:

IEM provides holistic multidisciplinary curriculum with subjects including Physics, Chemistry, Mathematics, English, Biology, Environmental Science, Principles of Management, Economics, Organizational Behavior, and Constitution of India. Higher semesters include exposure to allied fields—for example, Mechanical Engineering students are taught Data Science and AI, promoting interdisciplinary competencies aligned with 21st-century skills requirements.

Curriculum Design and Academic Flexibility

Curriculum Development Process:

The institute follows a methodical process for developing, revising, and executing program curricula regularly, considering:

- Syllabi of reputed national and international universities (IITs, NITs, JU, MIT, Stanford University)
- Model AICTE curriculum guidelines
- Program Specific Outcomes (PSOs) for each program
- Suggestions from industry experts and alumni
- Competitive examination syllabi (GATE, IES, etc.)

Curriculum Innovation (2022-23):

- **19 programs** underwent syllabus revision during the year
- **181 new courses** introduced across all programs
- **1,321 total courses** offered across all programs
- **619 courses** focusing on employability and entrepreneurship skill development
- **21 programs** offered through Choice Based Credit System (CBCS)/Elective Course System

Outcome-Based Education (OBE):

All programs implement OBE with pre-defined Course Outcomes (CO), 12 Program Outcomes (PO), Program Specific Outcomes (PSO), and Graduate Attributes (GA) leading to achievement of Program Educational Objectives (PEO) following Washington Accord, AICTE, and NBA standards.

Inclusive and Equitable Education

Support for Diverse Learners:

The institution assesses students' learning levels and organizes special programs for both slow learners (scoring less than 55 marks) and advanced learners:

- 9 bridge courses conducted for upcoming curriculum requirements
- Special GATE coaching classes for advanced learners pursuing higher studies
- Video lectures from eminent professors through Coursera (5,000+ courses), LinkedIn (18,000+ courses), NPTEL (2,000+ courses), IEM Learning (200+ courses)
- Skill Development for Professionals (SDP) and Essential Studies for Professionals (ESP) classes for all students
- Mini projects assigned by faculty members related to curriculum subjects

Financial Support and Scholarships:

- **619 students** benefitted from scholarships and freeships from institution and non-government agencies
- Alumni Association contributed Rs. 30.5 Lakh for free scholarships to deserving students
- Financial assistance system for critical medical requirements of students

Student-Teacher Ratio:

- **Student-Teacher ratio:** 5,515 students : 349 full-time teachers (15.8:1)
- **Student-Mentor ratio:** 5,515 students : 431 mentors (12.8:1)
- Dedicated mentorship system ensuring personalized academic guidance

Teaching-Learning Excellence and Innovation

Faculty Profile (2022-23):

- **Total full-time teachers:** 349 (against 349 sanctioned posts - 100% filled)

- **Teachers with PhD/D.Sc./D.Litt:** 128 (36.7% of total faculty)
- **Total teaching experience:** 2,446 years cumulative at institution
- **Teachers recognized as research guides:** 128 faculty members
- **Teachers with research projects:** 78 faculty members

Faculty Development Initiatives:

- **302 teachers** underwent online/face-to-face Faculty Development Programmes including Professional Development Programmes, Orientation/Induction Programmes, Refresher Courses, and Short-Term Courses
- **217 teachers** provided financial support to attend conferences, workshops, and membership fees of professional bodies
- **53 professional development and administrative training programs** organized by institution for teaching and non-teaching staff
- **76 teachers** awarded national/international fellowships for advanced studies/research
- Performance recognition through monetary incentives and reimbursement of conference registration fees

Faculty Research Productivity:

- **1009 research papers** published Scopus Journals
- **233 books and chapters** in edited volumes published
- **202 citations** in Scopus during the year
- **h-index:** 144.36 (Scopus)
- Seed money grants: Rs. 267.30 lakhs provided to teachers for research

ICT-Enabled Teaching and Learning

Digital Infrastructure:

- **2,426 computer systems** for academic purposes (Student-Computer ratio: 1:1)
- **84 ICT-enabled classrooms** with LCD projectors (158 total projectors)
- **99 classrooms and seminar halls** with ICT facilities
- **15 seminar rooms** for industry connect and workshops
- **2 Smart Boards** installed for interactive learning
- **Internet bandwidth:** 2.4 Gbps high-speed connectivity
- **Wi-Fi routers:** 202 deployed across campus and hostels

Digital Learning Platforms:

- IEM Learning platform with 200+ video lectures by IEM faculty
- Access to NPTEL, Coursera, LinkedIn Learning, EdX
- Digital library resources: J-Gate (29,306 journals), EBSCO (1,064 titles), Delnet, NDLI, IEEE Digital Library, Springer (222 journals), Scopus, Web of Science
- Library automation: LSEase and KOHA software
- Online assessment through IEMCRP platform
- Google Classroom for notes and study materials

Virtual and Physical Labs:

- Facilities for virtual/physical labs using software: LTSpice, Vesta, Logisim, Weka, R, Anaconda, MATLAB
- Innovation labs: Augmented and Virtual Reality Lab, Advanced Material Research Lab, Antenna Design Lab, IoT Lab, Information Security and Application Development Lab
- IEDC laboratories with specializations in AI/ML, Drone Technology, AR-VR, Computer Vision, Data Science

Student-Centric Pedagogies

Experiential and Participative Learning:

- Industry visits to VECC, NTH, ERTL to bridge academia-industry gap
- **4,411 students** undertaking field work/projects/internships/student projects
- Industry-related final year projects from 2nd year under mentorship of faculty and external industry members
- 40+ model exhibitions and competitions annually
- Techno-management fests: INNOVACION, SYTRON, SRIJAN, SMART Makers Fair

Problem-Solving Methodologies:

- Special classes: SDP, ESP, General Studies, GATE classes, competitive coding
- Numerous coding competitions, Olympiads, and hackathons by each department
- Successful participation in Smart India Hackathon, IISF, and national-level competitions

Examination and Evaluation System

Continuous Assessment:

- IT-integrated Examination Management System (EMS) through IEMCRP platform
- Continuous Internal Assessment (CIA) for holistic student evaluation
- Online quiz assessments after every theory class
- Mid-term and end-semester examinations with standardized processes

Examination Efficiency:

- **66 days** from last semester-end examination to result declaration
- **251 student complaints/grievances** against evaluation (efficiently addressed)
- **100% exam results** published systematically

- Examination Grievance Redressal Committee for prompt complaint resolution

Research, Innovation, and Knowledge Creation

Research Facilities:

- Well-defined research policy uploaded on institutional website
- Specialized research labs: Augmented and Virtual Reality Lab, Advanced Material Research Lab, Antenna Design Lab, IoT Lab, Information Security and Application Development Lab, Astronomical Research Lab
- **8% of institutional budget** allocated to research and innovation
- **Rs. 267.30 lakhs** seed money provided to teachers for research

Research Grants and Projects:

- **Rs. 38 crore** grant received from Government and Non-Governmental agencies
- **78 teachers** with active research projects
- **15 departments** having research projects funded by Government and Non-Government agencies
- Special research grants: Dr. G. S. Taki (UGC DAE CSR, Rs. 45,000), Dr. Darothi Sarkar (Institute of Engineers India, Rs. 43,200)

Publications and Scholarly Work:

- **1009 research papers** in Scopus Journals
- **233 books and chapters** in edited volumes published
- **20215 citations** in Scopus
- **h-index: 144.36** (Scopus)
- Students instructed to publish final-year projects as research papers

PhD Program:

- **128 teachers** recognized as research guides
- **79 PhD students** registered during the year
- Research Advisory Committee and Ethics Committee operational
- Plagiarism check through authenticated software
- Code of Ethics for Research implemented

Conferences and Knowledge Dissemination:

- **45+ International Conferences** organized annually (IRTM, ICCAES, etc.)
- Registration fees reimbursed for accepted papers
- **60 workshops/seminars** conducted on Research Methodology, IPR, Entrepreneurship, and Skill Development

Innovation Ecosystem:

- **Innovation and Entrepreneurship Development Cell (IEM-IEDC)** previously funded by DST, Government of India
- Specialized innovation labs for cutting-edge technology research
- **172 startups** supported annually through IEM Entrepreneurship Cell (E-Cell)
- Interdisciplinary projects: wearable Anti-Tremor device for Parkinson's patients, eco-friendly terracotta-based air cooler, women safety devices

Industry Collaboration:

- **18 functional MoUs** with institutions of national/international importance, industries, and corporate houses
- **3,214 collaborative activities** for research, faculty exchange, student exchange, internship, on-the-job training, and project work
- Partnerships with TCS Innovation Lab, CII, PwC
- Industry experts as final-year project guides

Consultancy Services:

- **Rs. 2680.603 lakhs** revenue generated from consultancy and corporate training
- **Rs. 201.748 lakhs** spent on developing consultancy facilities and training

Skill Development and Employability**Comprehensive Skill Development:**

- **1,590 value-added courses** offered during the year
- **9,383 students** enrolled in value-added courses
- Courses on Soft Skills, Language and Communication Skills, Life Skills, Yoga, Physical Fitness, Health and Hygiene, Awareness of Trends in Technology

Essential and Professional Skills:

- Essential Skills for Professionals (ESP) and Skill Development for Professionals (SDP) courses mandatory for all students
- Skills covered: quantitative aptitude, verbal ability, critical reasoning, interpersonal skills, teamwork, experiential learning, analytical reasoning, data interpretation, emotional intelligence, leadership management
- Foreign languages: French and Chinese offered

Industry Certifications:

- Industry and Foreign Certification courses mandatory for all students
- MoUs with Coursera, LinkedIn, EDUSkills, and EdX providing free licenses for endless online courses
- NPTEL/SWAYAM credits accepted (20+ credits for B.Tech. Degree with Honors)

Career Guidance:

- **4,285 students** benefitted from guidance/coaching for competitive examinations and career counseling

- Special GATE coaching classes for higher studies aspirants
- Regular career counseling sessions and industry interaction programs

Placement Success:

- **1,194 outgoing students** got placement during the year (79.4% of final year students)
- **151 students** progressed to higher education
- **133 students** qualified in state/national/international level examinations (IIT-JAM, NET, SET, JRF, GATE, GMAT, CAT, GRE, TOEFL, Civil Services)

Employability Enhancement:

- Weekly Foreign Lectures and Industry lectures through IEM CONNECT
- Training programs with industry experts
- Involvement of external industry members as project guides
- Final year projects can be done entirely in industry under joint supervision

Infrastructure and Learning Resources

Teaching-Learning Facilities:

- **84 classrooms** (seating capacity: 60 students each)
- **52 specialized laboratories** well-equipped for curriculum and research
- **15 seminar halls** for industry connect and workshops
- **99 total classrooms and seminar halls** with ICT facilities
- All classrooms equipped with LCD projectors, Wi-Fi, and IPV6 LAN connectivity

Computing Infrastructure:

- **2,426 computer systems** for academic purposes
- **115+ printers** across campuses

- **202 Wi-Fi routers** deployed campus-wide
- **987 CCTV cameras** for security
- **52 TVs** installed at prominent campus locations

Support Facilities:

- Separate common rooms and sports rooms for boys and girls
- Gymnasium, yoga center, auditorium facilities
- Indoor sports: Badminton (3 courts), Table Tennis (9 tables), Carom (9 boards), Chess (30 boards)
- Outdoor sports: Cricket (120m), Football (80m), Volleyball (18m x 1), Basketball (30m x 3)
- Disabled-friendly infrastructure: ramps/lifts, disabled-friendly washrooms, signage, assistive technology

Library Infrastructure:

- Central library with departmental libraries
- Automated using LSEase and KOHA Integrated Library Management Systems
- **845,000+ books and e-books**
- **3,245 average users** per day (teachers and students)

Digital Library Resources:

- **E-journals:** J-Gate (29,306 full-text journals), EBSCO (1,064 full-text titles), Springer (222 journals), IEEE Digital Library (ASPP-197), Delnet, Web of Science, Scopus, ProQuest, NDLI
- **E-book databases** and remote access to e-resources
- **Annual expenditure:** Rs. 129.07 lakhs on books, e-books, and journal subscriptions

Online Learning Resources:

- Access to NPTEL (2,000+ courses), Coursera (5,000+ courses), LinkedIn Learning (18,000+ courses), EdX, SAP, Udemy
- IEM Learning platform (200+ courses by IEM faculty)
- Video lectures from IIT professors and reputed industries

Quality Assurance and Continuous Improvement

IQAC Mandate and Structure:

- Established: April 30, 2015
- **4 IQAC meetings** held during the year
- Coordinators: Prof. Dr. Arun Kumar Bar, Prof. Dr. Sanghamitra Poddar
- **Rs. 5 lakhs** funding received for IQAC activities

IQAC Significant Contributions (2022-23):

- Spearheaded NBA accreditation preparation for MBA, ECE, and ME departments (ECE and MBA accredited for 3 years)
- Continuous curriculum upgradation per industry requirements
- Creation of centers of excellence and innovative labs
- Financial support system for critical medical requirements
- Improvement in NIRF rankings

Quality Enhancement Mechanisms:

- Regular internal and external academic audits per NAAC/NBA quality framework
- Systematic stakeholder feedback collection and analysis from students, teachers, employers, and alumni
- Continuous syllabus upgradation based on feedback
- Question bank quality improvement per Bloom's Taxonomy mapped with Course Outcomes

- Annual reports and quality assurance documentation

Institutional Accreditation:

- **NAAC Cycle 1:** Grade A, CGPA 3.25 (2017)
- **Validity:** June 9, 2017 to December 31, 2024
- **Autonomous status:** January 20, 2019
- **AICTE approval:** All departments successfully received approval for all courses

Program Accreditation:

- **NBA accreditation** achieved for ECE and MBA departments (3-year validity)
- ME department NBA accreditation visit conducted
- Continuous preparation for accreditation maintenance and expansion

National Rankings:

- Active participation in NIRF (National Institutional Ranking Framework)
- Efforts to improve research publications and placement scenario for NIRF ranking enhancement
- AISHE data submission: December 30, 2022

Inclusivity, Equity, and Social Responsibility

Gender-Inclusive Environment:

- Co-educational institution with gender-neutral uniforms
- Women in leadership: Registrar, Principal, Deans, Heads of Departments, Placement Cell
- Internal Complaints Committee (ICC) operational 24x7 with emergency contact displayed campus-wide
- Gender sensitivity activities, field work, community outreach under ICC

Support for Diverse Learners:

- Programs for slow learners and advanced learners
- Bridge courses and remedial classes
- Special dietary considerations in campus food services
- Multilingual support (Hindi, Bengali) for doubt clarification

Disabled-Friendly Infrastructure:

- Ramps/lifts for easy access to classrooms and centers
- Disabled-friendly washrooms
- Signage including tactile paths, lights, display boards
- Assistive technology: screen-reading software, mechanized equipment
- Human assistance: readers, scribes, soft copies of materials

Cultural Celebrations:

- Religious festivals: Christmas, Eid, Mahavir Jayanti, Buddha Purnima, Durga Puja, Holi/Basant Utsav, Chaat Puja, Navratri/Dandiya Utsav
- National celebrations: Republic Day, Independence Day, Gandhi Jayanti, Swami Vivekananda's Birthday, Teachers' Day
- Cultural events: Rabindra Jayanti, Youth Day, Children's Day, Ethnic Day, International Mother Language Day
- Annual cultural festival with dedicated day for Indian contemporary and classical programs

Linguistic Diversity:

- Teaching in English with vernacular language support for doubts (Hindi, Bengali)
- Foreign language courses: French, Chinese

- Multi-lingual events: Palabra Por Palabra (extempore fest), Ink and Echo (language fest), Word Waves (poetry competition in regional languages)
- Morning assembly with motivational quotes in Hindi and Bengali

Regional Support:

- Special leave for Bihar and Jharkhand students during Chhat celebration
- Inclusive environment respecting all cultural, regional, and religious practices

Values Education:

- Mandatory courses: Values and Ethics, Constitution of India, Environmental Science, Geography, Economics, Political Science
- Compulsory morning assembly with national anthem
- Code of Conduct document well-circulated
- Regular addresses by Principal and HODs on values, rights, duties, and responsibilities of citizens

Social Engagement:

- **35 extension and outreach programs** through NSS/NCC/Red Cross/YRC
- **5,489 students** participating in extension activities
- Collaboration with NGOs: Kolkata Nivedita Shakti, VIBHA, Rotary Club, Lions Club, Inner Wheel Club
- Community visits: child care homes, orphanages, old age homes
- Donation camps and social welfare activities

Environmental Consciousness:

- Tree plantation drives
- E-Waste recycling: 1,752.60 Kg in 2022-23
- Water conservation: rainwater harvesting, bore wells, waste water recycling

- Energy conservation and green campus initiatives

Student Support and Progression

Mentorship and Guidance:

- **431 mentors** for 5,515 students (12.8:1 student-mentor ratio)
- Personalized academic and career guidance
- Regular mentor-mentee meetings documented

Grievance Redressal:

- Student Grievance Committee operational
- Anti-ragging committee with mandatory registration
- ICC for sexual harassment reporting (24x7 emergency contact)
- Prompt resolution of academic and personal grievances

Medical and Financial Support:

- Financial support system for critical medical requirements
- Accident policy and health insurance for students
- Alumni Association support for medical emergencies

Student Participation:

- **IEM Students' Gymkhana:** Official student body with representation in academic and administrative committees
- Student councils: Sports Committee, Cultural Committee, Magazine Committee
- **63 sports and cultural events** organized during the year
- **39 awards/medals** for outstanding performance in sports/cultural activities at inter-university/state/national/international events

Professional Development:

- Student chapters of professional societies operational
- Technical clubs and innovation clubs
- Participation in national competitions: Smart India Hackathon, IISF
- Tech fests: INNOVACION, SYTRON, SRIJAN

Holistic Development:

- Mandatory yoga and physical fitness classes for all students
- Self-defense classes (especially for female students)
- Health and wellness programs
- Leadership development through student body elections and committee participation

Alumni Association:

- Registered body under Societies Act
- **IEM Foundation (USA):** Non-profit organization headquartered in Washington
- **Rs. 30.5 Lakh** contribution for student scholarships and support

Alumni Contributions:

- Free scholarships to deserving students
- Study materials and stationery support
- Funding for innovative student projects
- Alumni talks and guidance sessions
- Mentorship for startups and entrepreneurship
- Book and resource donations to library
- Industry project supervision and mentorship

Data and Metrics

Performance Indicator	Annual Target	Achievement
Programs offered	21	21 (100%)
Total student enrollment	5,500	5,515 (100.3%)
Faculty positions filled	349	349 (100%)
Faculty with PhD	35%	128 (36.7%)
Curriculum revisions	18	19 (105.6%)
New courses introduced	175	181 (103.4%)
FDPs for faculty	50	53 (106%)
Faculty attending FDPs	300	302 (100.7%)
Research papers published	1009	1000 (100.9%)
Students in value-added courses	9,000	9,383 (104.3%)
Student placements	1,100	1,194 (108.5%)
ICT-enabled classrooms	99	99 (100%)
Library e-journal access	25,000	29,306+ (117%)
Extension program participation	5,000	5,489 (109.8%)

Challenges and Mitigation Strategies

Challenges Identified:

- Maintaining consistent quality across rapidly expanding programs and student body
- Keeping pace with rapidly evolving technology and industry requirements
- Ensuring adequate research infrastructure and funding for all faculty
- Balancing theoretical knowledge with practical skill development
- Addressing diverse learning needs in large classroom settings

Mitigation Strategies Implemented:

- Continuous faculty development through systematic FDPs and training

- Regular industry interaction and curriculum review committees
- Seed money grants and research support systems for faculty
- Experiential learning emphasis through projects, internships, and industry visits
- Personalized mentorship system and special programs for slow/advanced learners
- ICT integration for blended and flexible learning approaches

Strategic Roadmap (2023-24 and Beyond)

Academic Excellence:

- Expand NBA accreditation to additional departments
- Introduce emerging technology programs (AI, Data Science, Cyber Security, Blockchain)
- Strengthen international collaborations and student exchange programs
- Enhance outcome-based education assessment mechanisms

Research and Innovation:

- Target 150+ research publications in high-impact journals
- Increase research grant acquisition to Rs. 600+ lakhs
- Support 250+ startups through enhanced entrepreneurship ecosystem
- Establish additional specialized research centers

Infrastructure and Technology:

- Upgrade 100% classrooms to smart classroom standards
- Enhance digital library resources and e-learning platforms
- Expand innovation labs and makerspaces
- Implement advanced analytics for student performance tracking

Inclusivity and Access:

- Increase scholarship coverage to 750+ students
- Enhance support systems for students with disabilities
- Strengthen mentorship programs with 1:10 mentor-mentee ratio
- Expand outreach programs to 6,000+ community beneficiaries

Quality Assurance:

- Maintain NAAC accreditation and improve CGPA
- Achieve higher NIRF rankings (target: Top 100 Engineering)
- Implement comprehensive digital quality management system
- Strengthen industry-academia partnership for curriculum relevance

Conclusion

IEM Kolkata exemplifies its commitment to SDG 4: Quality Education through inclusive, equitable, and high-quality academic initiatives that foster professional success and lifelong learning. With 21 programs, 5,515 students, 349 faculty members, and advanced ICT-enabled infrastructure, the institute has built a robust ecosystem for research, innovation, and student support. In 2022–23, IEM achieved notable milestones: NBA accreditation for major departments, over 100% performance target attainment, 1,194 student placements, 1,009 research publications, and 9,383 learners in skill development courses. Additionally, 35 outreach programs strengthened community engagement and social awareness. The institution's focus on outcome-based education, industry collaboration, and entrepreneurial development ensures that learning remains relevant and impactful. Moving forward, IEM continues to enhance academic quality, expand educational access, foster innovation, and reinforce partnerships, sustaining its leadership in advancing national educational goals with excellence and social responsibility.

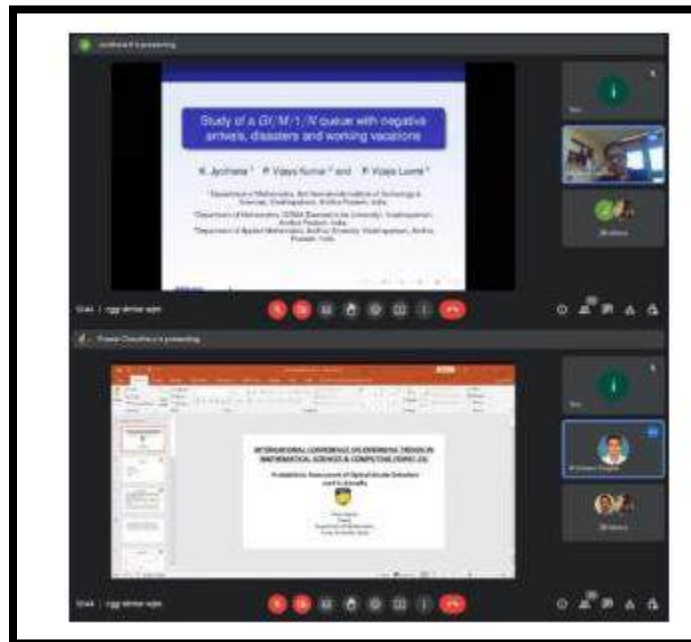
Photo gallery



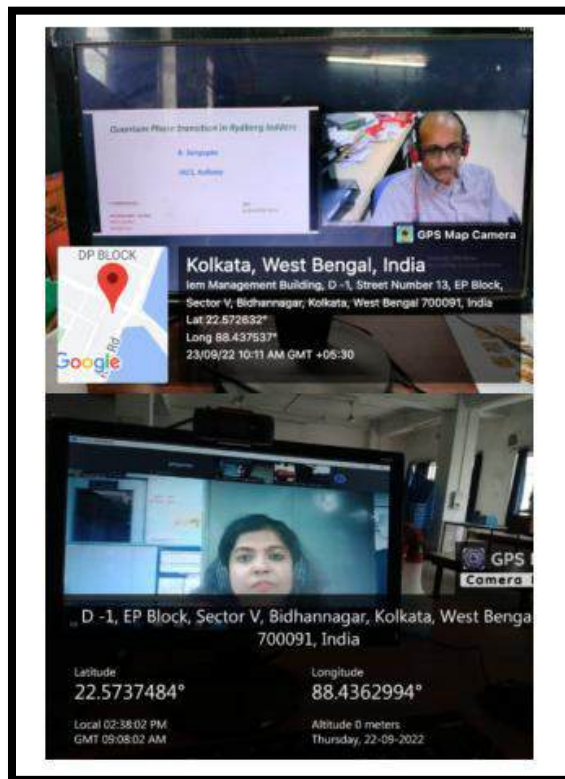
Conference (IC- IEM 2023) was organized on 25th March 2023 by the BBA Departments of IEM



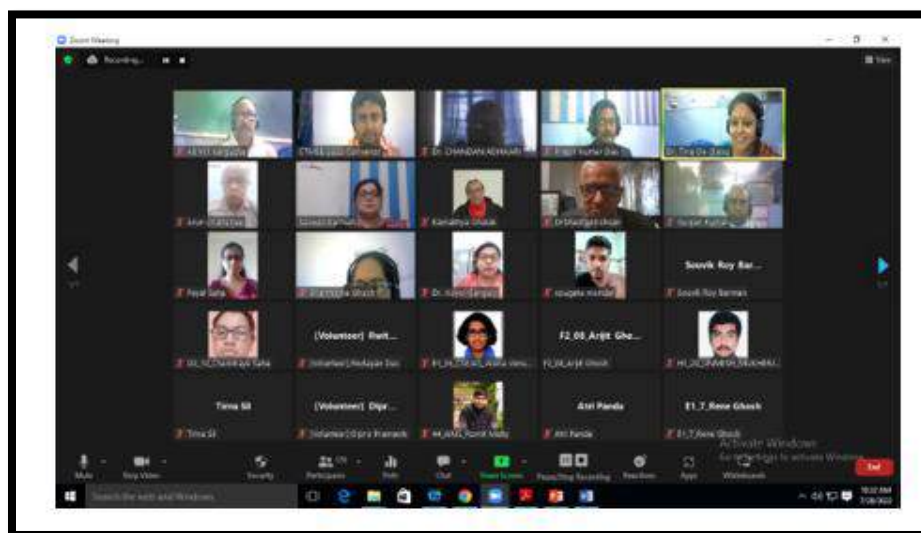
3rd International Conference on Innovations in Energy Management and Renewable Resources (IEMRE-2023) from 16th February to 18th February 2023



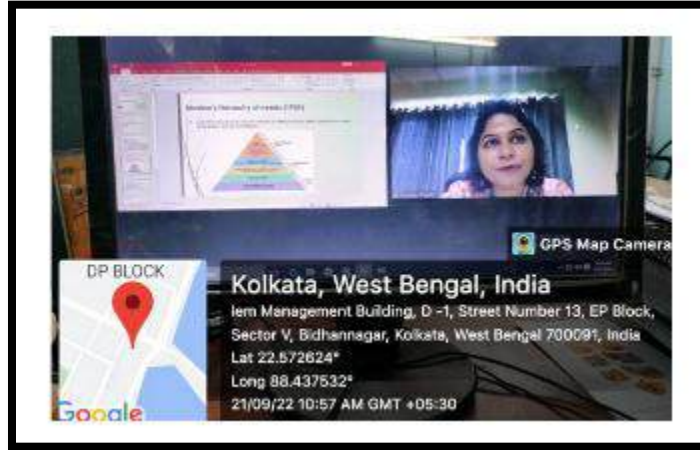
Department of Basic Science & Humanities, IEM, Kolkata is organizing the Fourth International Conference on Emerging Trends in Mathematical Sciences & Computing (IEMSC-23) from 3rd - 5th February 2023



International Conference on Advanced Physics – IEMPHYS 2022 is organized by the Department of Basic Science and Humanities



4th International Conference on Current Trends in Materials Science & Engineering (CTMSE 2022)



Prof. Dr. Priyanka Triparthi of IIT Patna talked about various aspects of language. During the session, she highlighted on multiple theories like Maslow's Hierarchy of Needs Theory, Trait Theory to make the students understand the fundamental needs of learning languages.

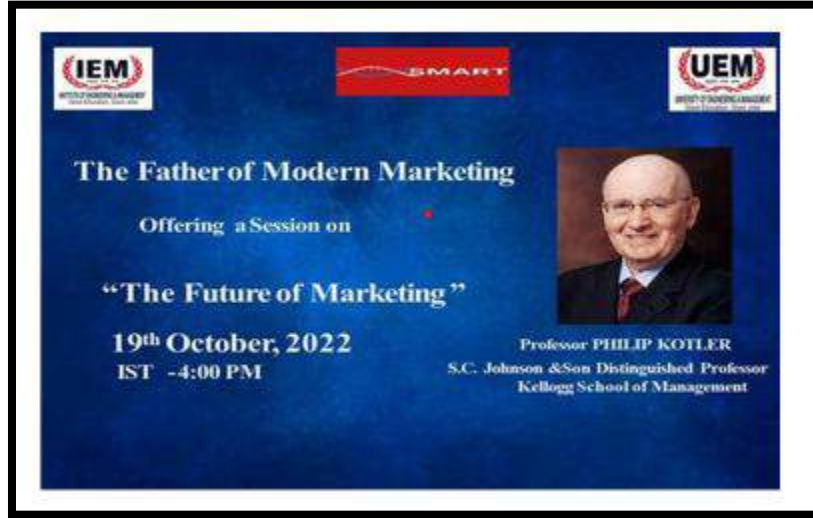




Various laboratory facilities



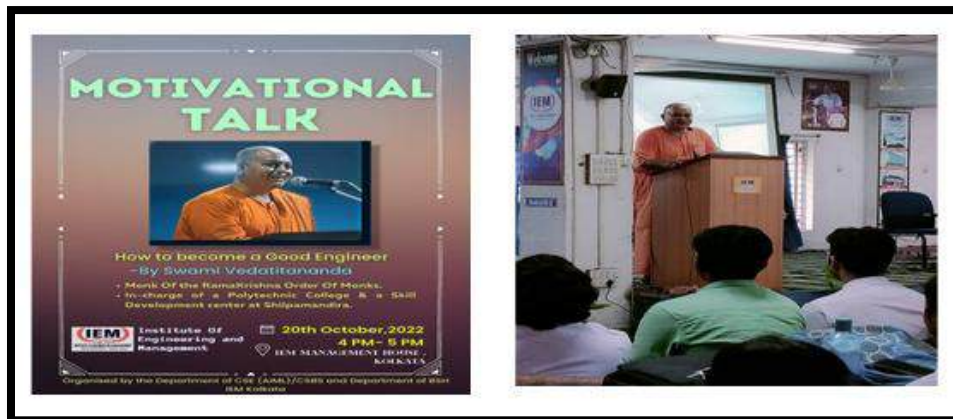
Lecture by Nobel Laureate, Prof. Konstantin Novoselov



Distinguished Foreign Lecture by Prof. Philip Kotler, known as the "Father of Modern Marketing,"



Lecture by Eminent Persons: Worldview Sessions and Interactive Talks



Swami Vedatitananda of Belur Shilpamandir came and delivered a motivational and inspirational talk for the newly inducted students at Management House auditorium



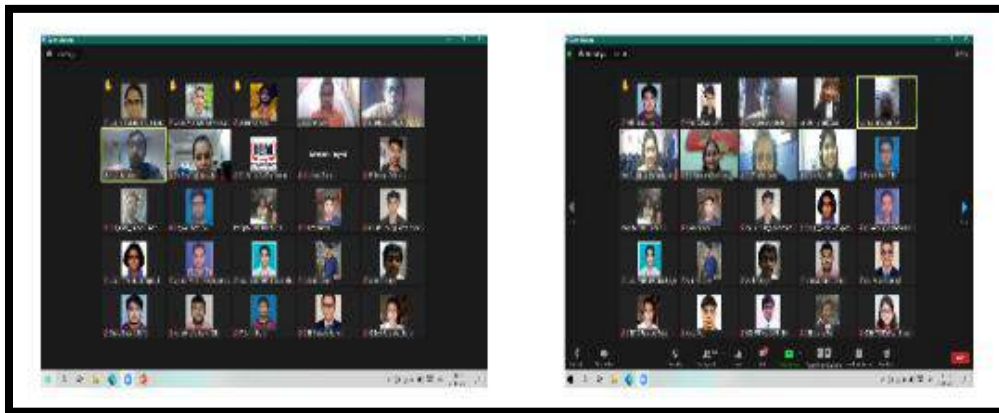
Dr. Sanghamitra Poddar delivered a lecture on “Anti ragging Committee”



Dr. Arun Kumar Bar (Principal, Institute of Engineering & Management, Kolkata) delivered his talk on “Internal compliance Committee”.



Dr. Binu James Mathew, College of Banking and Finance, Oman gave his engaging Talk on the “Maladies of Online Teaching Learning Process and Strategies to Shift to a Flipped Classroom Model”



An interactive and motivational session conducted by IEM Alumnus Mr. Alomoy Banerjee during the Student Induction Program



Workshop on cloud computing

THE NORTHCAP UNIVERSITY

ENGAGE 3.0

1-2 NOVEMBER 2023

WIN EXCITING CASH PRIZES UPTO ₹15,000

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Google DSC IEM collaborated with The NorthCap University to bring ENGAGE 3.0



Khuli kitab event

Sustainable Development Goal 5: Gender Equality

Vision, Mission, and Strategic Objectives

Vision Statement

IEM seeks to create an inclusive academic environment where every individual, regardless of gender, enjoys equal rights, opportunities, and respect, while striving to eliminate discrimination and empower women and girls both within the campus and in surrounding communities.

Mission Statement:

The mission for SDG 5 centers on maintaining gender-neutral policies in admissions, recruitment, and career advancement; ensuring safety through robust infrastructure and complaint mechanisms; providing mentorship and leadership opportunities for women; and conducting regular awareness programs on gender equality, women's rights, and prevention of harassment.

Strategic Objectives for 2022-23:

1. Ensure equal access to education for women across all programs with gender-neutral admission policies and support mechanisms.
2. Maintain women in leadership positions including Registrar, Principal, Deans, and Head of Departments as role models.
3. Operate a functional Internal Complaints Committee (ICC) to address sexual harassment complaints with strict confidentiality.
4. Provide comprehensive safety infrastructure including CCTV surveillance, security officers, and monitored access systems.
5. Conduct regular gender sensitization workshops and awareness programs for students, faculty, and staff.

6. Ensure equal opportunities for career development, research funding, and professional advancement regardless of gender.

Comprehensive Gender Equality Initiatives

Equal Access to Education and Facilities

IEM operates as a co-educational institution with gender-neutral policies governing admissions, curriculum access, and facilities utilization. During 2022-23, the campus enrolled 5,515 students across 21 programs, with women students represented across all disciplines including engineering, management, computer applications, and sciences.

The institution maintains uniform academic standards and provides equal access to:

- Laboratories, workshops, and research facilities without gender-based restrictions
- Library resources and digital learning platforms accessible 24/7
- Sports facilities, gymnasiums, and wellness centers for all students
- Hostels with dedicated accommodation for women students with appropriate safety measures
- Computer systems (2,426 total) and ICT-enabled classrooms (84) for all students
- Scholarships and financial assistance based on merit and need, not gender

Gender-neutral uniforms are mandated throughout the institution, eliminating visible markers of differentiation and promoting equality.

Women in Leadership and Decision-Making

IEM actively promotes women's representation in institutional leadership and governance structures. During 2022-23, women held significant positions including:

- Multiple Deanships held by women faculty members
- Head of Department positions across various academic departments
- Leadership of Placement Cell ensuring equal career opportunities

- Representation on statutory committees including Academic Council, Board of Studies, and Governing Body

Among 349 full-time faculty members, women are represented across all ranks including professors, associate professors, and assistant professors. Faculty selection committees ensure gender balance, and promotions are merit-based without gender discrimination.

The institution's Internal Quality Assurance Cell (IQAC) includes women members, ensuring gender perspectives inform quality enhancement initiatives.

Safety and Security Infrastructure

IEM has established comprehensive safety infrastructure to ensure a secure environment for all members, with particular attention to women's safety concerns:

Surveillance and Monitoring:

- 987 CCTV cameras installed across all campuses providing comprehensive coverage
- 24/7 electronic surveillance monitored by security personnel
- 17 security officers deployed at strategic locations throughout campus
- Visitor registration systems requiring entry documentation
- Alumni registration encouraged for campus access tracking

Access Control:

- Monitored hostel entry and exit timings with attendance systems
- Restricted access to campus during late hours with security clearance
- Emergency contact numbers displayed prominently across campus corridors
- Direct communication channels to security control rooms

Support Facilities:

- Dedicated women's restrooms on every floor of all buildings
- Separate parking areas for women students and staff

- Well-lit pathways and common areas ensuring visibility
- Emergency call points installed at strategic locations

Internal Complaints Committee and Redressal Mechanisms

IEM operates a fully functional Internal Complaints Committee (ICC) established under the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013. The committee operates year-round addressing complaints related to sexual harassment and gender-based discrimination.

ICC Features:

- Composition includes women faculty members, external experts, and student representatives
- 24/7 emergency contact number displayed across all campus corridors
- Strict confidentiality maintained for all complaints and proceedings
- Prompt investigation and resolution within statutory timelines
- Disciplinary actions implemented following committee recommendations
- Regular reporting to institutional governance bodies

During 2022-23, the ICC conducted awareness sessions, received and processed complaints, and ensured timely redressal with appropriate actions. The committee maintains detailed records while protecting complainant identities.

Gender Sensitization and Awareness Programs

IEM conducts comprehensive gender sensitization programs throughout the academic year, targeting students, faculty, staff, and community members:

Workshops and Training:

- Gender equality workshops organized quarterly for all stakeholder groups
- Sexual harassment prevention training during orientation programs
- Self-defense classes conducted regularly for women students

- Leadership training programs specifically designed for women
- Mentorship programs connecting senior and junior women students

Awareness Campaigns:

- International Women's Day celebrated annually on March 8 with special programs
- National Girl Child Day observed on January 24 with awareness activities
- Virangana workshops emphasizing women's education, health, and empowerment
- Panel discussions, debates, and seminars on women-related themes
- Distribution of awareness materials on women's rights and legal protections

Collaboration and Partnerships:

Training programs are conducted in collaboration with organizations including:

- Rotary Club conducting gender equality workshops
- Lions Club organizing awareness programs
- Inner Wheel Club facilitating women's empowerment initiatives
- Kolkata Nivedita Shakti partnering for community outreach

During orientation programs, all incoming students receive mandatory gender sensitization training emphasizing respect, equality, and zero tolerance for harassment.

Career Development and Professional Advancement

IEM ensures equal opportunities for career development and professional growth without gender-based discrimination:

Faculty Development:

- Equal access to Faculty Development Programs (FDPs) for all faculty members
- Financial support for conference attendance (217 teachers supported during 2022-23)

- Research funding and seed money allocated based on merit, not gender (₹267.30 lakhs provided)
- Publication incentives and patent filing support available equally
- International fellowship opportunities (76 teachers awarded during 2022-23)

Student Career Support:

- Placement Cell led by women ensuring equal opportunities for all students
- 1,194 students placed during 2022-23 across various industries
- Career counseling and guidance provided equally to all students
- Skill development programs including Essential Studies for Professionals (ESP)
- Entrepreneurship support through IEM-IEDC for startups initiated by all genders

Research and Innovation:

- 128 research guides recognized, including women faculty members
- 79 PhD students registered during 2022-23 including women scholars
- Research laboratories accessible equally to all researchers
- Collaborative research projects involving women faculty and students
- Publication opportunities in CARE journals and international conferences

Maternity Benefits and Family Support

IEM provides comprehensive maternity and family support benefits ensuring women faculty and staff can balance professional and personal responsibilities:

- Six months maternity leave for women employees with job security
- Two weeks paternity leave for male employees supporting shared parenting responsibilities
- Flexible working arrangements during pregnancy and early childcare period
- Medical facilities and group accident insurance for all employees

- Reimbursement of tuition fees for children of employees regardless of parent's gender
- Interest-free loans available to all employees for personal needs

Curriculum Integration and Value Education

Gender equality and women's empowerment topics are integrated into academic curriculum:

- Constitution of India course including fundamental rights and gender equality provisions
- Values and Ethics course addressing gender discrimination and respect
- Organizational Behavior curriculum covering workplace equality and diversity
- Environmental Science and Principles of Management courses incorporating gender perspectives
- Case studies and projects addressing gender issues across disciplines

Student clubs and societies promote women's participation:

- Women in Science and Engineering society providing networking and mentorship
- Women in Business society promoting women's leadership in commerce
- Women in Medicine society supporting women medical students
- Active participation of women students in technical festivals, hackathons, and competitions
- Leadership roles in student chapters of professional societies (IEEE, ISTE, etc.)

Community Outreach and Social Impact

IEM extends its gender equality commitment beyond campus boundaries through outreach programs:

- National Service Scheme (NSS) conducting gender equality awareness in communities

- Distribution of sanitary napkins and hygiene kits to underprivileged women and girls
- Nutrition and health workshops for women in slum areas and marginalized communities
- Collaboration with NGOs for women's skill development and livelihood programs
- Support for child care homes and institutions serving girl children

During 2022-23, over 2,000 student volunteers participated in community programs addressing gender inequality and women's empowerment.

Data and metrics

Performance Indicator	Annual Target	Achievement
Women in leadership positions	15+	18
ICC complaints resolved within 48 hours	100%	Achieved
CCTV cameras operational	950+	987
Gender sensitization workshops conducted	8	12
Self-defense training sessions	6	8
Student volunteers in gender equality programs	1,500	2,000+
Women faculty receiving research funding	Equal access	Achieved
Maternity leave provision compliance	100%	100%

Challenges, Response, and Mitigation

Challenges

- Addressing deep-rooted gender stereotypes and unconscious bias in academic and professional settings
- Ensuring consistent gender sensitivity across diverse stakeholder groups
- Balancing safety measures with maintaining an open and accessible campus environment

- Encouraging women's participation in traditionally male-dominated fields
- Mobilizing sustained engagement in long-term behavioral change initiatives
- Addressing work-life balance concerns for women faculty and staff

Mitigation Responses

- Implemented mandatory gender sensitization training during orientation and regular intervals
- Established mentorship programs pairing senior women faculty with junior colleagues
- Enhanced safety infrastructure with technology-enabled surveillance and monitoring
- Created women-focused societies and networks in STEM disciplines
- Integrated gender equality modules across curriculum and value education courses
- Provided flexible working arrangements and comprehensive maternity benefits
- Engaged male students and faculty as allies in gender equality initiatives
- Established clear protocols and strict disciplinary measures for violations

Future Roadmap and Strategic Plan (2023-24 and Beyond)

- Increase representation of women in senior leadership positions to 40% by 2025
- Expand gender sensitization programs to include community members and parents
- Develop advanced training modules on unconscious bias and inclusive leadership
- Establish dedicated Women's Center providing counseling, mentorship, and support services
- Launch women-focused entrepreneurship programs and startup incubation
- Strengthen partnerships with industries promoting women's employment in technical fields

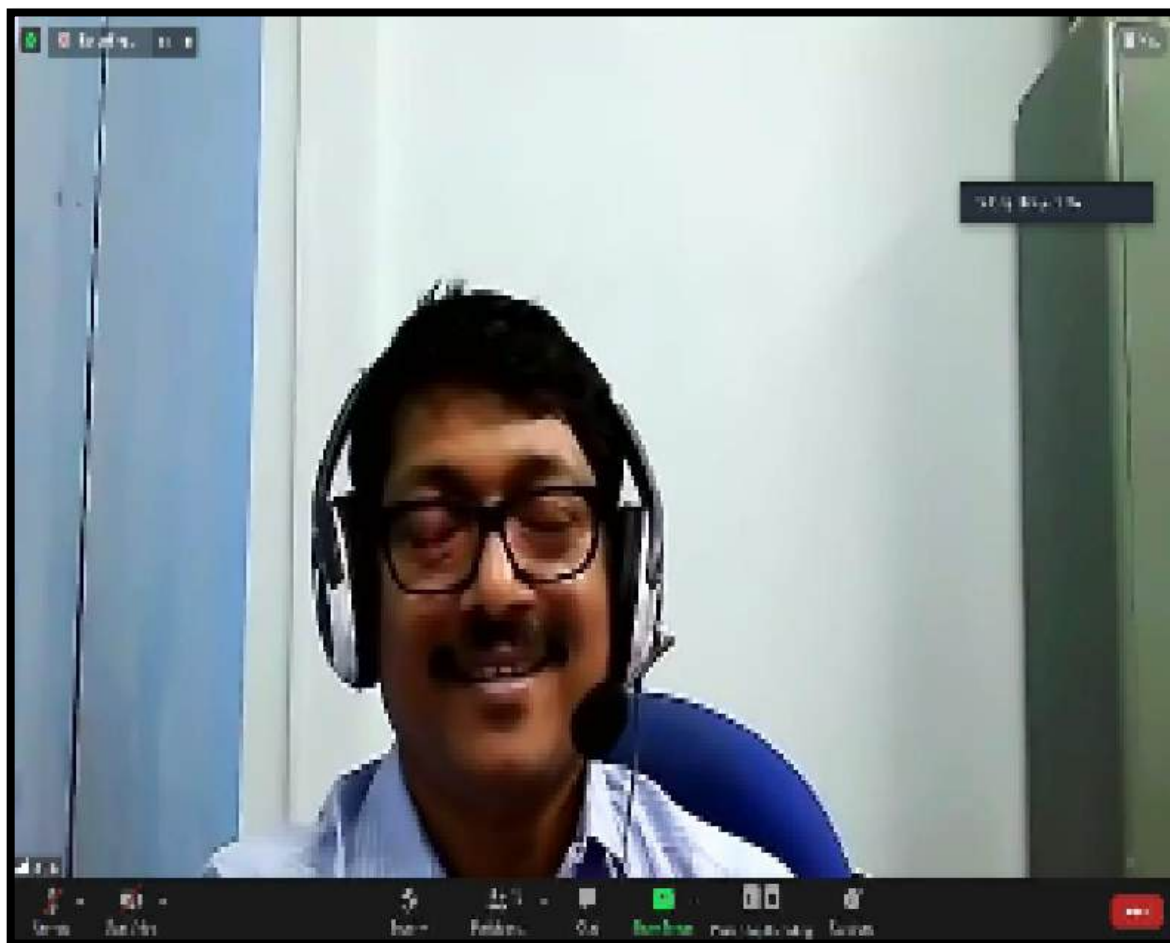
- Implement gender-disaggregated data collection and monitoring systems
- Create safe transportation facilities for women students and staff during late hours
- Organize annual Gender Equality Conclave bringing together stakeholders and experts
- Develop research projects addressing gender issues in Indian higher education context

Conclusion

IEM Kolkata's comprehensive strategy for SDG 5: Gender Equality demonstrates unwavering institutional commitment to equal rights, opportunities, and safety for all individuals regardless of gender. By ensuring equal access to education, promoting women in leadership, maintaining robust safety infrastructure, operating effective complaint redressal mechanisms, and conducting regular sensitization programs, IEM establishes itself as a model for gender-inclusive higher education institutions.

Collaborative efforts between administration, faculty, students, ICC, and community partners continue to drive cultural transformation and systemic change, positioning IEM at the forefront of gender equality initiatives in academic institutions for 2023 and beyond. The institution recognizes that achieving true gender equality requires sustained commitment, continuous improvement, and engagement of all stakeholders in creating a just and equitable society.

Photo Gallery



Dr. Arun Kumar Bar (Principal, Institute of Engineering & Management, Kolkata) delivered his talk on “Internal compliance Committee”.



Celebration of International Women's Day

Sustainable Development Goal 6: Clean water and sanitation

Vision, Mission, and Strategic Objectives

Vision Statement:

IEM seeks to establish itself as a water-responsible institution where sustainable water management, efficient utilization, and conservation practices ensure reliable access to clean water while minimizing environmental impact and promoting water stewardship among all stakeholders.

Mission Statement:

The mission for SDG 6 centers on implementing efficient water distribution systems; maintaining high-quality sanitation facilities; promoting rainwater harvesting and groundwater recharge; treating and recycling wastewater for non-potable uses; and conducting regular awareness programs on water conservation, pollution prevention, and sustainable water practices.

Strategic Objectives for 2022-23:

1. Maintain efficient water supply and distribution systems ensuring reliable access to clean water for 5,515 students and 349 faculty members across all campuses.
2. Implement comprehensive wastewater treatment using aerobic sewage treatment techniques with recycling for gardening and landscaping.
3. Establish rainwater-harvesting infrastructure for collection, storage, and groundwater recharge to reduce dependence on municipal water supply.
4. Ensure proper maintenance of water bodies, storage tanks, and distribution networks to prevent contamination and maintain water quality.
5. Provide adequate sanitation facilities including restrooms, hygiene stations, and waste disposal systems across all buildings.

6. Conduct water conservation awareness programs and promote responsible water use behaviors among students, faculty, and staff.

Comprehensive Water and Sanitation Management Initiatives

Water Supply and Distribution Infrastructure

IEM maintains a robust water supply and distribution system serving the entire campus population of 5,515 students and 349 faculty members across Salt Lake Sector-V campuses. The institution ensures reliable access to clean water through:

Water Supply Systems:

- Municipal water supply from Kolkata Metropolitan Development Authority (KMDA)
- Adequate water storage capacity in overhead tanks and underground reservoirs
- Well-maintained distribution network with regular monitoring and maintenance
- Strategic placement of water points across all buildings and facilities
- 24/7 water availability in hostels, laboratories, canteens, and common areas

Water Quality Monitoring:

- Regular water quality testing for pH, turbidity, dissolved solids, and microbial contamination
- Periodic cleaning and disinfection of storage tanks and overhead reservoirs
- Installation of water filtration systems at critical consumption points
- Quality assurance protocols for drinking water in canteens and mess facilities
- Compliance with Bureau of Indian Standards (BIS) specifications for potable water

The institution maintains separate pipe systems for potable water and recycled water used for gardening and landscaping, ensuring no cross-contamination and optimal resource utilization.

Wastewater Treatment and Recycling

IEM has established a comprehensive wastewater management system emphasizing treatment, recycling, and environmental responsibility:

Aerobic Sewage Treatment Plant:

- Advanced aerobic sewage treatment technique for processing all campus wastewater and sewage
- Treatment capacity adequate for daily wastewater generation from hostels, canteens, laboratories, and sanitation facilities
- Multi-stage treatment process including primary screening, aeration, clarification, and disinfection
- Regular monitoring of treatment efficiency and effluent quality parameters
- Compliance with Central Pollution Control Board (CPCB) discharge standards

Water Recycling and Reuse:

- Utilization of treated wastewater for gardening, landscaping, and irrigation of green spaces
- Separate distribution network for recycled water preventing mixing with potable supply
- Significant reduction in freshwater consumption for non-potable applications
- Annual water savings through recycling contributing to campus sustainability
- Closed-loop water management minimizing environmental discharge

During 2022-23, the wastewater treatment and recycling system processed substantial volumes of campus wastewater, with treated water effectively utilized for maintaining the institution's extensive green cover and landscaping.

Rainwater Harvesting and Groundwater Recharge

IEM has implemented rainwater-harvesting infrastructure to collect, store, and utilize rainwater while enhancing groundwater recharge:

Rainwater Collection Systems:

- Roof-top rainwater collection from major academic buildings, hostels, and administrative blocks
- Surface water collection from paved areas, courtyards, and parking zones
- Strategic placement of collection points maximizing capture during monsoon season
- Storage in dedicated underground tanks and recharge pits
- Filtration systems removing debris and particulate matter before storage

Groundwater Recharge Infrastructure:

- Construction of recharge wells and percolation pits across campus
- Artificial recharge to groundwater aquifers augmenting natural reservoirs
- Reduction in municipal water demand through groundwater replenishment
- Prevention of rainwater runoff and associated flooding during heavy rainfall
- Enhancement of local water table supporting long-term water security

Rainwater Utilization:

- Collected rainwater used for toilet flushing, gardening, and non-potable applications
- Separate pipe system for rainwater distribution contributing to cost reduction
- Integration with wastewater recycling for comprehensive water management

- Monitoring of rainwater harvesting efficiency and storage capacity utilization

The rainwater harvesting system significantly contributes to campus water sustainability by reducing dependence on external water sources and promoting natural resource conservation.

Sanitation and Hygiene Facilities

IEM maintains comprehensive sanitation infrastructure ensuring hygiene, health, and dignity for all campus users:

Restroom Facilities:

- Dedicated women's restrooms on every floor of all academic and administrative buildings
- Men's restrooms strategically distributed across campus
- Gender-neutral restrooms available in selected locations
- Total sanitation facilities adequate for 5,515 students and 349 faculty members
- Regular cleaning and maintenance by dedicated housekeeping staff
- Adequate water supply ensuring cleanliness and hygiene

Hygiene Infrastructure:

- Handwashing stations with soap and water at multiple locations
- Hand sanitizer dispensers in high-traffic areas
- Waste disposal bins for sanitary napkins in women's restrooms
- Adequate lighting and ventilation in all sanitation facilities
- Accessibility features for differently-abled users
- 24/7 availability of sanitation facilities in hostels

Maintenance and Quality Standards:

- Daily cleaning protocols for all restrooms and hygiene stations

- Periodic deep cleaning and disinfection procedures
- Regular inspection by housekeeping supervisors ensuring quality standards
- Prompt repair and maintenance of fixtures, plumbing, and equipment
- Feedback mechanisms for reporting sanitation issues
- Compliance with hygiene and sanitation regulatory requirements

Water Conservation Technologies and Practices

IEM has adopted various water conservation technologies and practices promoting efficient water use:

Water-Efficient Fixtures:

- Installation of sensor-based taps in restrooms reducing water wastage
- Dual-flush toilets minimizing water consumption per flush
- Water-efficient urinals and sanitary fixtures
- Low-flow showerheads in hostel bathrooms
- Regular maintenance ensuring optimal fixture performance

Leak Detection and Prevention:

- Regular inspection of water distribution networks identifying leaks
- Prompt repair of leaking taps, pipes, and fixtures
- Monitoring of water consumption patterns detecting abnormal usage
- Preventive maintenance reducing water losses
- Staff training on leak identification and reporting procedures

Landscaping and Irrigation:

- Drip irrigation systems for gardens and green spaces optimizing water use
- Selection of drought-resistant and native plant species requiring less water
- Mulching practices reducing soil moisture evaporation

- Scheduled irrigation during early morning or evening minimizing evaporation losses
- Utilization of treated wastewater and rainwater for irrigation

Water Metering and Monitoring:

- Installation of water meters at strategic locations tracking consumption
- Regular monitoring of daily and monthly water usage patterns
- Data analysis identifying areas for conservation improvement
- Setting water consumption targets and performance indicators
- Periodic reporting to IQAC and management for review

Waste Recycling and Resource Recovery

IEM implements comprehensive waste management practices supporting water conservation and environmental sustainability:

Solid Waste Management:

- Strategic placement of garbage collection bins across campus
- Daily collection and disposal by Nodal Karnataka Development Authority (NKDA)
- Emphasis on recycling to minimize environmental impact
- Segregation of biodegradable and non-biodegradable waste
- Composting of organic waste reducing landfill burden

Waste Recycling Metrics:

Consistent improvement in e-waste recycling demonstrates institutional commitment to environmental responsibility:

Academic Year	Waste Recycled (Kg)
2019-2020	486
2020-2021	522

2021-2022	1,344.26
2022-2023	1,752.60

E-Waste Management:

- Repair of defective electronic devices extending utility and reducing waste
- Safe disposal of e-waste in collaboration with Hulladek Recycling Pvt. Ltd.
- Recycling every six months adhering to state government guidelines
- Detailed records of e-waste recycling showcasing annual progress
- Environmentally responsible disposal of electronic waste preventing soil and water contamination

Hazardous Waste Management:

- Use of dilute solutions in laboratory settings minimizing hazardous chemical generation
- Responsible and safe disposal of chemical solutions and wastes through neutralization
- Student training on proper chemical handling and disposal procedures
- Compliance with environmental regulations for hazardous waste management
- Prevention of hazardous chemical release into water bodies and drainage systems

Green Campus and Environmental Initiatives

IEM promotes green campus initiatives supporting water conservation and environmental sustainability:

Green Infrastructure:

- Maintenance of extensive green cover and landscaped areas across campus
- Tree plantation drives conducted annually by NSS volunteers and student clubs

- Dedicated gardener appointed for maintaining campus gardens and green spaces
- Green spaces contributing to microclimate regulation and groundwater recharge
- Aesthetic landscaping enhancing campus environment and promoting biodiversity

Environmental Awareness:

- World Environment Day celebrated on June 5 with water conservation awareness activities
- Swachh Bharat Abhiyan initiatives emphasizing cleanliness and sanitation
- Workshops and seminars on environmental sustainability and water stewardship
- Integration of Environmental Science course in curriculum for all UG programs
- Field excursions and tree plantation activities promoting environmental responsibility

Plastic-Free Campus:

- Ban on single-use plastics across campus
- Awareness programs on plastic pollution and water body contamination
- Alternative sustainable packaging promoted in canteens and mess facilities
- Student campaigns against plastic waste contributing to water protection

Water Education and Curriculum Integration

IEM integrates water conservation and sanitation topics into academic curriculum and extension activities:

Curriculum Components:

- Environmental Science course covering water resources, conservation, and pollution
- Laboratory experiments on water quality testing and wastewater treatment
- Project-based learning on water management technologies

- Interdisciplinary courses addressing water-energy-food nexus
- Case studies on sustainable water management practices globally and locally

Research and Innovation:

- Research projects on wastewater treatment technologies and water purification
- Student projects on rainwater harvesting system design and optimization
- Innovation labs supporting development of water-efficient technologies
- Faculty research on sustainable water management receiving institutional seed funding
- Collaboration with industries and research organizations on water-related projects

Student Engagement:

- NSS volunteers conducting water conservation awareness in communities
- Student clubs organizing campaigns on water stewardship and sanitation
- Participation in national and international conferences on water sustainability
- Hackathons and competitions addressing water management challenges
- Student-led initiatives for campus water conservation improvements

Community Outreach and Social Impact

IEM extends its water and sanitation commitment beyond campus boundaries through community engagement:

NSS Extension Activities:

- National Service Scheme conducting water conservation awareness programs in surrounding communities
- Distribution of hygiene kits including soap, sanitizers, and sanitary napkins to underprivileged populations

- Health and sanitation workshops for women and girls in slum areas and marginalized communities
- Collaboration with NGOs including Rotary Club, Lions Club, Inner Wheel Club, and Kolkata Nivedita Shakti
- Support for community water infrastructure improvement projects

Health and Hygiene Campaigns:

- Free health check-up camps including water-borne disease screening
- Awareness programs on handwashing, sanitation, and hygiene practices
- Distribution of water purification tablets and hygiene education materials
- Workshops on menstrual hygiene management for girl students in nearby schools
- Collaboration with local health authorities for sanitation improvement initiatives

During 2022-23, over 2,000 student volunteers participated in extension activities addressing water access, sanitation, and hygiene challenges in communities surrounding the campus.

Data and metric

Performance Indicator	Annual Target	Achievement
Wastewater treatment efficiency	> 90%	Achieved
Water recycling for gardening	100% treated water	Achieved
Rainwater harvesting operational	All systems functional	Achieved
Sanitation facility cleanliness score	> 85%	92%
Water quality testing frequency	Quarterly	4 tests conducted
E-Waste recycling (kg)	1,500	1,752.60
Student volunteers in water programs	1,500	2,000+
Green campus maintenance	Year-round	Achieved

Challenges, Response, and Mitigation

Challenges

- Managing water demand for growing student population while maintaining conservation goals
- Ensuring consistent water quality across all distribution points during peak usage periods
- Addressing behavioral challenges in promoting water conservation among diverse stakeholders
- Maintaining rainwater harvesting and groundwater recharge systems during non-monsoon seasons
- Balancing campus development activities with water conservation infrastructure requirements
- Coordinating with municipal authorities for water supply during maintenance disruptions

Mitigation Responses

- Implemented water metering and monitoring systems providing real-time consumption data
- Enhanced water storage capacity ensuring supply continuity during disruptions
- Conducted regular awareness campaigns promoting responsible water use behaviors
- Established preventive maintenance schedules for water infrastructure reducing breakdown incidents
- Integrated water conservation principles in campus expansion and construction projects
- Developed contingency plans for water supply emergencies including backup sources

- Engaged students through competitions and incentive programs for water conservation
- Invested in water-efficient technologies reducing per-capita consumption

Future Roadmap and Strategic Plan (2023-24 and Beyond)

- Expand rainwater harvesting capacity by 30% through additional collection and storage infrastructure by 2025
- Install advanced water metering systems with real-time monitoring and analytics capabilities
- Achieve 20% reduction in per-capita water consumption through efficiency improvements and behavioral change
- Establish water quality testing laboratory on campus for regular in-house monitoring
- Develop student-led water conservation clubs promoting peer-to-peer awareness
- Implement greywater recycling systems in hostels for toilet flushing and gardening
- Create water-positive campus achieving net-positive water balance through conservation and recharge
- Launch community water infrastructure improvement projects in partnership with local authorities
- Integrate IoT-based smart water management systems for leak detection and consumption optimization
- Develop research partnerships on water treatment technologies and sustainable water management

Conclusion

IEM Kolkata's comprehensive strategy for SDG 6: Clean Water and Sanitation demonstrates unwavering institutional commitment to sustainable water management, environmental stewardship, and community well-being. By implementing efficient water supply systems, maintaining advanced wastewater treatment facilities, promoting rainwater harvesting, ensuring high sanitation standards, and conducting awareness programs, IEM establishes itself as a model for water-responsible higher education institutions.

Collaborative efforts between administration, faculty, students, housekeeping staff, NSS volunteers, and community partners continue to drive sustainable water practices and systemic improvements, positioning IEM at the forefront of water stewardship initiatives in academic institutions for 2023 and beyond. The institution recognizes that achieving water sustainability requires sustained commitment, technological innovation, behavioral change, and engagement of all stakeholders in preserving this vital natural resource for present and future generations.

Photo Gallery



Water efficient fixtures in bathrooms of Management House, IEM Campus



Drinking water purification system

Sustainable Development Goal 7: Affordable and Clean Energy

Vision, Mission, and Strategic Objectives

Vision Statement:

IEM seeks to establish itself as an energy-efficient institution where sustainable energy practices, renewable energy deployment, and energy conservation measures ensure reliable access to clean and affordable energy while minimizing environmental impact and promoting energy stewardship among all stakeholders.

Mission Statement:

The mission for SDG 7 centers on implementing energy-efficient technologies and practices; deploying renewable energy systems including solar power; conducting regular energy audits and monitoring consumption patterns; promoting awareness on energy conservation and clean energy among students, faculty, and staff; and integrating sustainable energy concepts into academic curriculum and research activities.

Strategic Objectives for 2022-23:

1. Maintain reliable and efficient energy supply systems ensuring continuous power availability for 5,515 students and 349 faculty members across all campuses.
2. Implement LED lighting and energy-efficient equipment across classrooms, laboratories, and common areas to reduce electricity consumption.
3. Deploy renewable energy systems including solar power generation to supplement grid electricity and reduce carbon footprint.
4. Conduct comprehensive energy audits to identify consumption patterns, inefficiencies, and opportunities for energy conservation.
5. Promote energy conservation behaviors and awareness among campus community through campaigns, workshops, and curriculum integration.

6. Integrate clean energy concepts into academic programs, research projects, and innovation initiatives.

Comprehensive Energy Management Initiatives

Energy Infrastructure and Power Supply

IEM maintains robust energy infrastructure ensuring reliable power supply across the entire campus serving 5,515 students and 349 faculty members. The institution ensures continuous electricity access through:

Electrical Infrastructure:

- Grid electricity connection from West Bengal State Electricity Distribution Company Limited (WBSEDCL)
- Adequate electrical capacity supporting academic buildings, laboratories, hostels, administrative blocks, and support facilities
- Well-maintained electrical distribution network with regular monitoring and preventive maintenance
- Strategic placement of electrical panels, transformers, and distribution boards across campus
- 24/7 power availability ensuring uninterrupted operations for teaching, learning, research, and residential facilities

Power Backup Systems:

- Diesel generators providing emergency backup power during grid failures
- Uninterrupted Power Supply (UPS) systems for critical laboratories, data centers, and servers
- Battery backup systems ensuring continuity of operations in research facilities
- Regular testing and maintenance of backup power systems ensuring reliability
- Fuel management and monitoring protocols for backup generators

The institution prioritizes energy reliability while simultaneously implementing efficiency measures and renewable energy integration to reduce dependence on conventional power sources.

LED Lighting and Energy-Efficient Technologies

IEM has undertaken comprehensive initiatives to replace conventional lighting with energy-efficient LED technology and deploy power-efficient equipment:

LED Lighting Deployment:

- Extensive installation of LED bulbs across classrooms, laboratories, corridors, and common areas
- Replacement of conventional incandescent and CFL bulbs with LED lighting reducing energy consumption by approximately 60-80%
- LED tube lights in laboratories and workshops providing better illumination with lower power consumption
- Energy-efficient LED projectors (158 projectors) in ICT-enabled classrooms reducing electricity use
- Motion sensor-based LED lighting in selected areas optimizing energy use

Energy-Efficient Equipment:

- Procurement of energy-efficient computers and IT equipment (2,426 computer systems with power-saving features)
- Energy Star-rated appliances in hostels, canteens, and administrative offices
- Power-efficient air conditioning systems with temperature control and timer settings
- Variable Frequency Drive (VFD) motors in water pumps reducing electricity consumption
- Energy-efficient fans and cooling systems across campus buildings

Smart Energy Management:

- Automated lighting control systems in selected buildings reducing unnecessary energy use
- Timer-based operation of electrical equipment during non-operational hours
- Power management settings on computers and workstations enabling automatic sleep mode
- Regular maintenance of electrical equipment ensuring optimal energy efficiency
- Energy monitoring systems tracking consumption patterns in major facilities

During 2022-23, LED lighting and energy-efficient equipment significantly reduced campus electricity consumption while maintaining and improving quality of illumination and operational efficiency.

Renewable Energy: Solar Power Systems

IEM has deployed renewable energy systems to supplement grid electricity and promote clean energy:

Solar Energy Infrastructure:

- Installation of solar photovoltaic (PV) panels on building rooftops generating clean electricity
- Grid-connected solar power systems feeding renewable energy into campus electrical network
- Solar water heating systems in hostels reducing electricity consumption for water heating
- Solar-powered outdoor lighting in selected campus areas promoting sustainable illumination
- Regular maintenance and monitoring of solar installations ensuring optimal performance

Solar System Benefits:

- Reduction in grid electricity consumption and associated carbon emissions

- Demonstration of renewable energy technology for students and visitors
- Cost savings on electricity bills through solar power generation
- Educational resource for engineering students studying renewable energy systems
- Contribution to India's renewable energy targets and climate change mitigation

Future Renewable Energy Plans:

- Expansion of solar PV capacity on additional building rooftops
- Exploration of battery storage systems for storing excess solar energy
- Integration of renewable energy monitoring systems for real-time data analysis
- Potential deployment of wind energy systems if feasible
- Research on emerging renewable energy technologies for campus applications

The solar power systems demonstrate IEM's commitment to transitioning toward clean energy sources and reducing environmental impact.

Energy Audits and Consumption Monitoring

IEM conducts systematic energy audits to assess consumption patterns, identify inefficiencies, and implement conservation measures:

Energy Audit Implementation:

- Comprehensive energy audits conducted periodically assessing electricity consumption across campus
- Professional energy auditors engaged to evaluate energy use in buildings, laboratories, and facilities
- Detailed analysis of lighting systems, HVAC equipment, electrical appliances, and industrial equipment
- Identification of energy wastage areas and recommendations for efficiency improvements
- Benchmarking energy consumption against industry standards and best practices

Thermal Energy Assessment:

- Thermal plant energy audits assessing boiler efficiency and steam distribution systems
- Evaluation of heat recovery opportunities and insulation improvements
- Assessment of thermal energy use in laboratories and research facilities
- Recommendations for optimizing thermal energy consumption

Energy Monitoring Systems:

- Installation of energy meters at strategic locations tracking electricity consumption
- Regular monitoring of daily, weekly, and monthly energy usage patterns
- Data analysis identifying peak consumption periods and opportunities for load shifting
- Comparison of energy consumption across different buildings and facilities
- Periodic reporting to IQAC and management for review and action

Energy Audit Outcomes:

- Identification of energy-saving opportunities totaling significant annual cost savings
- Recommendations for lighting upgrades, equipment replacement, and operational improvements
- Implementation of audit recommendations through phased action plans
- Continuous improvement in energy efficiency through regular audit cycles
- Documentation of energy performance establishing baseline for future improvements

Energy audits provide data-driven insights enabling IEM to systematically reduce energy consumption while maintaining operational efficiency.

Emissions Monitoring and Environmental Compliance

IEM implements comprehensive emissions monitoring and environmental compliance measures:

Emissions Auditing:

- Regular emissions auditing assessing greenhouse gas (GHG) emissions from campus operations
- Carbon footprint calculation including electricity consumption, transportation, and backup generators
- Evaluation of direct emissions (diesel generators) and indirect emissions (grid electricity)
- Monitoring of air quality parameters in and around campus
- Compliance with Central Pollution Control Board (CPCB) and State Pollution Control Board (SPCB) norms

Emissions Reduction Initiatives:

- LED lighting and energy-efficient equipment reducing electricity-related emissions
- Solar power generation displacing fossil fuel-based grid electricity
- Optimized operation of backup generators minimizing diesel consumption
- Promotion of public transportation and carpooling reducing vehicular emissions
- Tree plantation drives and green campus initiatives enhancing carbon sequestration

Environmental Reporting:

- Annual environmental reports documenting energy consumption and emissions data
- Disclosure of energy and emissions metrics to stakeholders and regulatory authorities
- Participation in environmental sustainability rankings and assessments
- Commitment to continuous reduction in carbon intensity and environmental impact

Emissions monitoring ensures transparency and accountability in IEM's journey toward carbon neutrality and environmental sustainability.

Energy Conservation Awareness and Behavioral Change

IEM promotes energy conservation awareness and behavioral change among students, faculty, and staff:

Awareness Campaigns:

- Regular campaigns promoting energy conservation during orientation programs and throughout academic year
- Display of energy conservation posters and signage across campus buildings
- Celebration of World Environment Day (June 5) with specific focus on energy conservation
- Workshops and seminars on sustainable energy practices and climate change mitigation
- Student-led initiatives promoting switch-off campaigns and energy-saving behaviors

Behavioral Change Initiatives:

- Encouraging students and staff to switch off lights, fans, and equipment when not in use
- Promotion of natural lighting and ventilation reducing dependence on artificial lighting and cooling
- Optimal use of air conditioning with temperature settings at 24-25°C
- Avoiding use of personal electrical appliances reducing unnecessary energy consumption
- Regular reminders through announcements, emails, and digital displays

Institutional Policies:

- Energy conservation guidelines included in campus code of conduct
- Mandatory energy-saving practices in hostels, laboratories, and administrative offices
- Incentive programs recognizing departments and individuals demonstrating exemplary energy conservation
- Periodic review of energy consumption patterns with feedback to departments

Awareness and behavioral change are critical components of IEM's energy conservation strategy, complementing technological and infrastructure upgrades.

Curriculum Integration and Academic Programs

IEM integrates sustainable energy concepts into academic curriculum and educational activities:

Curriculum Components:

- Environmental Science course for all UG programs covering renewable energy, energy conservation, and climate change
- Specialized courses on renewable energy technologies, solar energy systems, and energy management
- Laboratory experiments on solar photovoltaic systems, energy auditing, and energy-efficient technologies
- Project-based learning on clean energy solutions and sustainable energy systems
- Interdisciplinary courses addressing energy-environment-society nexus

Student Projects and Innovations:

- Final year projects on renewable energy systems, energy efficiency, and clean energy technologies
- Innovation labs (IoT Lab, Advanced Materials Research Lab, Antenna Design Lab) supporting energy-related research

- Student participation in hackathons and competitions focused on energy challenges
- Development of prototypes and proof-of-concept systems for clean energy applications
- Mentorship by faculty members guiding student innovation in energy sector

Research and Publications:

- Faculty research on renewable energy, energy efficiency, and sustainable energy systems
- Publication of research papers in peer-reviewed journals and conferences on energy topics
- Seed money grants (Rs. 267.30 lakhs in 2022-23) supporting energy-related research projects
- Collaboration with industries and research organizations on clean energy initiatives
- Patent filing for innovative energy technologies developed at IEM

Academic integration ensures that students gain knowledge and skills in sustainable energy, preparing them as future leaders in clean energy sector.

Innovation and Entrepreneurship in Clean Energy

IEM promotes innovation and entrepreneurship in clean energy sector through dedicated initiatives:

Innovation and Entrepreneurship Development Cell (IEM-IEDC):

- Support for student startups developing clean energy solutions and energy-efficient technologies
- Mentorship and funding for entrepreneurs working on renewable energy innovations
- Workshops and seminars on entrepreneurship in energy sector
- Industry partnerships facilitating commercialization of clean energy innovations

- Participation in national and international startup competitions focused on energy challenges

Startup Ecosystem:

- Over 172 student startups supported annually, including ventures in clean energy sector
- Seed funding, incubation facilities, and mentorship for energy-related startups
- Collaboration with industry partners like TCS Innovation Lab, Confederation of Indian Industry (CII), and PwC
- Success stories of IEM alumni founding clean energy companies and contributing to SDG 7

Technology Transfer and Commercialization:

- Facilitating technology transfer of energy innovations developed at IEM to industry
- Intellectual property protection through patents for energy-related inventions
- Consultancy services on renewable energy systems and energy management
- Revenue generation through consultancy (Rs. 2680.603 lakhs in 2022-23) including energy sector projects

Innovation and entrepreneurship initiatives position IEM as a hub for clean energy solutions and contribute to national energy transition goals.

Community Outreach and Social Impact

IEM extends its commitment to affordable and clean energy beyond campus boundaries through community engagement:

NSS Extension Activities:

- National Service Scheme conducting energy conservation awareness programs in surrounding communities

- Distribution of energy-efficient LED bulbs to underprivileged households reducing electricity costs
- Workshops on solar cooking, solar water heating, and renewable energy technologies for rural communities
- Promotion of clean energy access in marginalized communities through awareness and demonstration
- Support for community energy infrastructure improvement projects

Clean Energy Access Programs:

- Awareness programs on government schemes for solar power and renewable energy subsidies
- Training programs for community members on installation and maintenance of solar systems
- Support for rural electrification initiatives in collaboration with NGOs and government agencies
- Demonstration of energy-efficient cooking technologies reducing reliance on traditional biomass

Partnerships and Collaborations:

- Collaboration with NGOs including Rotary Club, Lions Club, and Inner Wheel Club on clean energy initiatives
- Partnerships with local authorities promoting energy efficiency in public buildings and streetlights
- Engagement with industries supporting deployment of renewable energy in communities
- Participation in government programs on energy conservation and renewable energy promotion

During 2022-23, over 2,000 student volunteers participated in extension activities promoting energy access, conservation, and clean energy adoption in communities surrounding campus.

Data and metrics

Performance Indicator	Annual Target	Achievement
LED lighting coverage	> 80% of campus	Achieved
Solar power generation operational	All systems functional	Achieved
Energy audit conducted	Annual	Completed
Energy-efficient equipment deployment	Ongoing upgrades	Achieved
Energy conservation awareness programs	10+ events	15+ conducted
Student volunteers in energy programs	1,500	2,000+
Research projects on clean energy	20+ projects	25+ projects
Emissions monitoring	Annual audit	Completed

Challenges, Response, and Mitigation

Challenges

- Managing energy demand for growing student population while maintaining conservation goals
- High upfront costs for renewable energy systems and energy-efficient equipment upgrades
- Limited roof space and structural constraints for expanded solar PV installations
- Behavioral challenges in sustaining energy conservation practices among diverse stakeholders
- Grid dependency and limited battery storage capacity for solar energy systems
- Balancing campus expansion with energy efficiency and renewable energy targets

Mitigation Responses

- Implemented phased approach for LED lighting and equipment upgrades based on budget allocation
- Secured seed funding and grants for renewable energy research and deployment projects
- Conducted feasibility studies for optimal solar PV placement maximizing available roof space
- Regular awareness campaigns and incentive programs promoting sustained energy conservation behaviors
- Explored innovative financing mechanisms including power purchase agreements for solar systems
- Integrated energy efficiency criteria in campus expansion and new construction projects
- Engaged students through competitions, clubs, and peer-to-peer initiatives for energy conservation
- Developed contingency plans for power supply emergencies including backup generation capacity

Future Roadmap and Strategic Plan (2023-24 and Beyond)

- Expand solar PV capacity by 50% through additional rooftop installations by 2025
- Achieve 30% reduction in per-capita electricity consumption through efficiency improvements and behavioral change
- Install battery energy storage systems enabling storage of excess solar power for evening use
- Deploy IoT-based smart energy management systems with real-time monitoring and analytics
- Achieve 20% renewable energy share in total campus electricity consumption by 2026

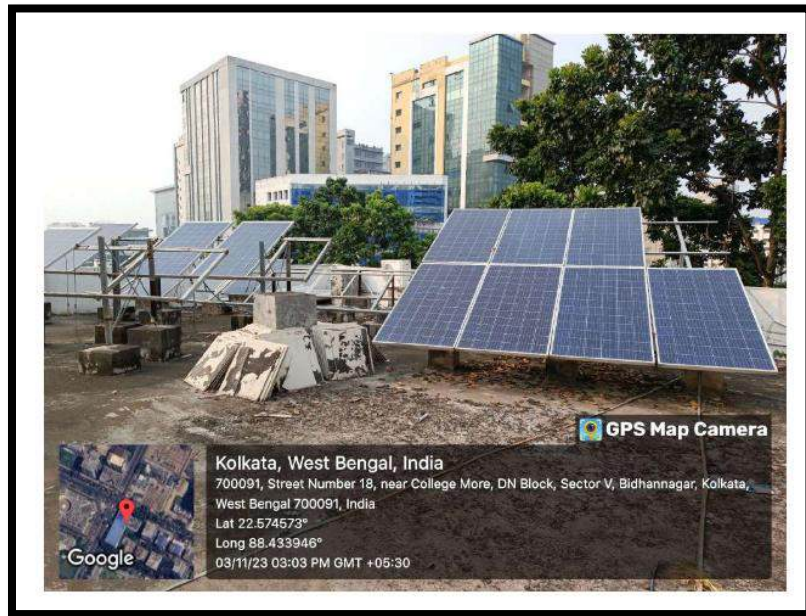
- Develop student-led energy conservation clubs promoting peer awareness and action
- Establish campus as living laboratory for renewable energy research and demonstration
- Implement building energy management systems in all major facilities optimizing HVAC and lighting
- Launch community clean energy access programs in partnership with local authorities and NGOs
- Achieve carbon-neutral campus status through renewable energy, efficiency, and offsetting by 2030
- Develop research partnerships on advanced energy technologies including green hydrogen and energy storage
- Integrate SDG 7 principles into all academic programs and institutional operations

Conclusion

IEM Kolkata's comprehensive strategy for SDG 7: Affordable and Clean Energy demonstrates unwavering institutional commitment to energy efficiency, renewable energy deployment, and environmental stewardship. By implementing LED lighting and energy-efficient technologies, deploying solar power systems, conducting energy audits, promoting conservation awareness, integrating clean energy into curriculum and research, and conducting community outreach, IEM establishes itself as a model for energy-responsible higher education institutions.

Collaborative efforts between administration, faculty, students, technical staff, NSS volunteers, and community partners continue to drive sustainable energy practices and systemic improvements, positioning IEM at the forefront of clean energy initiatives in academic institutions for 2023 and beyond. The institution recognizes that achieving energy sustainability requires sustained commitment, technological innovation, behavioral change, policy support, and engagement of all stakeholders in transitioning toward a clean energy future that ensures affordable, reliable, and sustainable energy access for all.

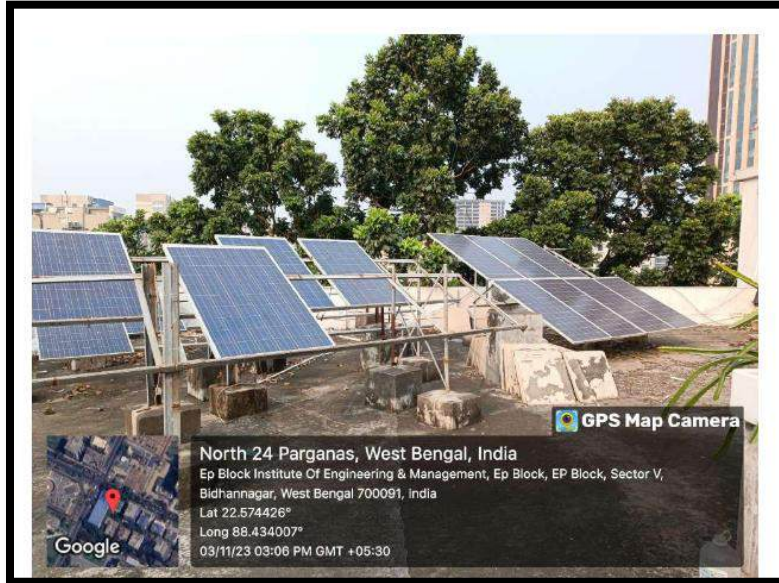
Photo Gallery



Solar panels installed on the roof



Solar panels installed on the roof



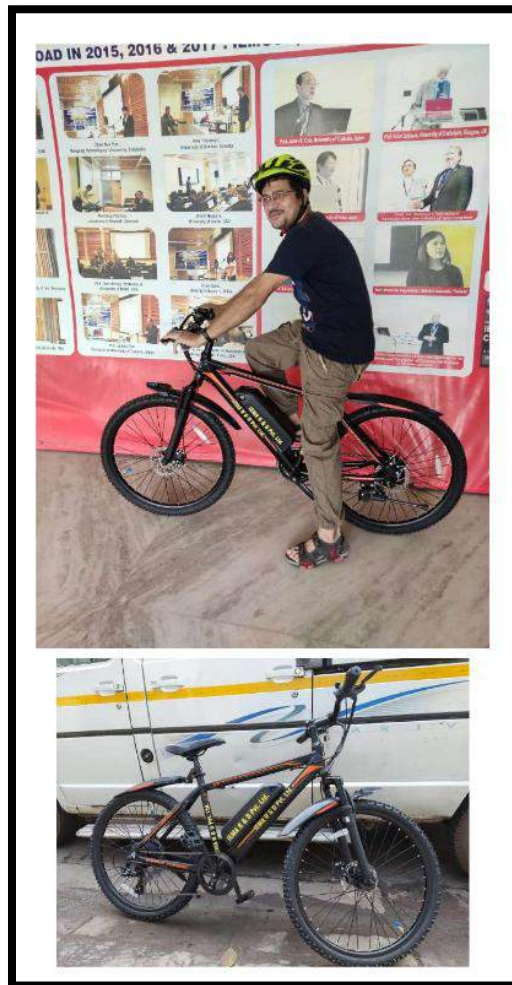
Solar panels installed on the roof



LED lights



Battery for EV



Battery powered Bicycle

Sustainable Development Goal 8: Decent Work and Economic Growth

Vision, Mission, and Strategic Objectives

Vision Statement:

IEM seeks to ensure that every student achieves gainful employment or successful entrepreneurship, while contributing to economic growth and productivity through innovation, skill development, and industry collaboration.

Mission Statement:

The mission for SDG 8 centers on maintaining high standards of employability through comprehensive training programs, fostering entrepreneurial spirit through dedicated innovation centers, ensuring industry-aligned curriculum, and creating pathways for decent work opportunities for all students.

Strategic Objectives for 2022-23:

1. Achieve placement rates exceeding 75% for eligible final-year students through campus recruitment drives and industry partnerships.
2. Provide comprehensive skill development training to 100% of students through specialized courses in soft skills, technical competencies, and professional development.
3. Support entrepreneurship by mentoring 200+ startup initiatives through IEM-IEDC and E-Cell programs.
4. Conduct 60+ workshops and seminars on employability, entrepreneurship, and skill enhancement.
5. Ensure curriculum alignment with industry requirements through regular review and incorporation of stakeholder feedback.

6. Facilitate internships and industrial training for 4,400+ students in collaboration with industry partners.

Comprehensive Employment and Skill Development Initiatives

Placement and Career Development

IEM maintains a robust placement infrastructure ensuring students secure decent employment opportunities. During 2022-23, the Placement Cell coordinated extensive campus recruitment activities, resulting in 1,194 students securing placements from 1,503 outgoing final-year students, achieving a placement rate of approximately 79%.

The Placement Cell operates year-round, organizing:

- Pre-placement training sessions covering aptitude, technical skills, and interview preparation
- Regular campus recruitment drives with leading companies across diverse sectors
- Industry interaction sessions through IEMCONNECT platform with weekly lectures from industry experts
- Career counseling services benefiting 4,285 students during the year
- Alumni mentorship programs connecting students with successful graduates

Companies recruiting from IEM span information technology, manufacturing, consulting, finance, and emerging technology sectors. The institution ensures equal opportunities for all students, with special support mechanisms for students from economically weaker sections.

Skill Development and Professional Training

Recognizing that employability extends beyond academic knowledge, IEM has embedded comprehensive skill development into its curriculum and co-curricular framework. Mandatory courses ensure all students develop essential professional competencies:

Curricular Skill Development:

- **Essential Skills for Professionals (ESP):** Core curriculum component developing quantitative aptitude, verbal ability, analytical reasoning, data interpretation, and critical thinking
- **Skill Development for Professionals (SDP):** Focused training in interpersonal skills, teamwork, experiential learning, emotional intelligence, and leadership management
- **Foreign Language Training:** French and Chinese language courses offered to enhance global employability
- **Technical Certifications:** Mandatory requirement of 15 credit points from industry and foreign certification courses for degree completion

During 2022-23, the institution offered 619 courses focusing specifically on employability and entrepreneurship skill development. Value-added courses totaling 1,590 were offered, with 9,383 student enrollments, ensuring comprehensive skill enhancement across all programs.

Professional Development Programs:

- Special GATE coaching for advanced learners pursuing higher studies and government employment
- Coding competitions, hackathons, and Olympiads promoting problem-solving culture
- Regular workshops on emerging technologies, industry practices, and professional ethics
- Bridge courses addressing learning gaps and preparing students for advanced curriculum

Access to online learning platforms amplifies skill development opportunities. IEM's partnerships with Coursera (5,000 courses), LinkedIn Learning (18,000 courses), NPTEL

(2,000+ courses), and IEM Learning (200+ courses) provide students unlimited access to professional development resources.

Entrepreneurship and Innovation Ecosystem

IEM has established a comprehensive entrepreneurship support system fostering innovation and startup culture. The Innovation and Entrepreneurship Development Cell (IEM-IEDC), previously funded by the Department of Science and Technology (DST), Government of India, serves as the institutional hub for entrepreneurial activities.

Innovation Infrastructure:

- Augmented and Virtual Reality Lab
- Advanced Material Research Lab
- Antenna Design Lab
- IoT Lab
- Information Security and Application Development Lab
- Astronomical Research Lab

These specialized facilities enable students to work on cutting-edge technologies, develop prototypes, and transform innovative ideas into viable business ventures.

Entrepreneurship Support Programs:

The IEM Entrepreneurship Cell (E-Cell) provides comprehensive support to aspiring entrepreneurs:

- Mentorship from experienced entrepreneurs, alumni, and industry experts
- Seed funding and resource allocation for promising startup ideas
- Business plan development guidance and pitch preparation
- Networking opportunities with investors, incubators, and industry partners
- Legal and administrative support for startup registration and compliance

During 2022-23, the E-Cell supported over 172 startup initiatives, ensuring students receive guidance to convert innovations into sustainable enterprises. Outreach programs in collaboration with TCS Innovation Lab, Confederation of Indian Industry (CII), and PwC further strengthened the entrepreneurial ecosystem.

Entrepreneurship Education:

The institution conducted 60 workshops and seminars on research methodology, intellectual property rights (IPR), entrepreneurship, and skill development during the year. These included:

- Entrepreneurship Awareness Camps
- Expert talks by successful entrepreneurs and industry leaders
- Tech-Fest INNOVACION showcasing student innovations
- Poster competitions and model exhibitions
- Participation in national competitions like Smart India Hackathon

Industry Collaboration and Internships

IEM maintains strong industry partnerships ensuring curriculum relevance and providing practical exposure to students. During 2022-23, 4,411 students undertook fieldwork, projects, or internships, gaining hands-on experience in real-world professional environments.

Industry Integration Mechanisms:

- 3,214 collaborative activities during the year for research, faculty exchange, student exchange, internship, and project work
- 18 functional MoUs with institutions of national and international importance, universities, industries, and corporate houses
- External industry members serving as final-year project guides
- Mandatory industrial training for all students

- Industry-sponsored research projects involving student participation

The institution generated INR 2680.603 lakhs revenue from consultancy and corporate training services during the year, demonstrating active industry engagement. Faculty members contributed expertise to industrial problem solving while students gained exposure to contemporary industrial challenges.

Curriculum Industry Alignment:

Regular curriculum review incorporates:

- Feedback from industry experts and alumni
- Analysis of competitive examination syllabi (GATE, IES)
- Benchmarking against reputed national and international universities (IITs, NITs, MIT, Stanford)
- Model AICTE curriculum guidelines
- Emerging technology trends and skill requirements

During 2022-23, syllabus revision was carried out for 19 programmes, ensuring continued alignment with industry requirements and global standards. The institution introduced 181 new courses across all programmes, reflecting responsiveness to evolving employment market demands.

Data and metrics

Performance Indicator	Annual Target	Achievement
Students placed during the year	1,125	1,194
Placement rate (%)	75	79
Students benefiting from career counseling	4,000	4,285
Startups supported through E-Cell	175	200+
Employability workshops conducted	50	60
Students undertaking internships/projects	4,200	4,411
Industry collaboration activities	3,000	3,214

Value-added skill courses offered	1,500	1,590
Students progressing to higher education	140	151

Challenges, Response, and Mitigation

Challenges

- Rapidly evolving technology landscape requiring continuous curriculum updates
- Ensuring placement opportunities for students from all academic backgrounds and performance levels
- Balancing theoretical education with practical skill development requirements
- Supporting entrepreneurship ventures beyond ideation to sustainable business establishment
- Addressing economic disparities affecting some students' access to supplementary training resources
- Maintaining industry partnerships amid changing economic conditions

Mitigation Responses

- Quarterly curriculum review and update process ensuring technology relevance
- Differentiated training programs for slow learners and advanced learners, ensuring inclusive skill development
- Mandatory hands-on training, laboratory projects, and industrial internships bridging theory-practice gap
- Extended E-Cell support including post-launch mentorship, funding connections, and business development guidance
- Scholarships and freeships for 619 students from economically weaker sections, ensuring equal access to opportunities

- Active industry engagement through regular corporate interactions, advisory board participation, and collaborative projects
- Seed money grants totaling INR 267.30 lakhs provided to 78 faculty members for research projects, strengthening innovation capacity

Future Roadmap and Strategic Plan (2023-24 and Beyond)

- Expand placement partnerships targeting emerging sectors including artificial intelligence, machine learning, block chain, and sustainable technologies
- Increase entrepreneurship success rate by establishing formal incubation facilities with funding partnerships
- Launch specialized employability training modules for industry 4.0 competencies
- Strengthen alumni mentorship programs connecting students with successful professionals globally
- Develop advanced simulation and practical training facilities for experiential learning
- Establish Centers of Excellence in collaboration with industry leaders for specialized skill development
- Increase international internship opportunities through global university partnerships
- Target 85% placement rate with enhanced support for students requiring additional assistance

Conclusion

IEM Kolkata's comprehensive strategy for SDG 8: Decent Work and Economic Growth demonstrates unwavering institutional commitment to employability, entrepreneurship, and economic development. By delivering industry-aligned education, comprehensive skill development, robust placement support, and entrepreneurship mentorship, IEM establishes itself as a model for preparing graduates who contribute meaningfully to economic growth and sustainable development.

Collaborative efforts between administration, faculty, industry partners, alumni, and students continue to drive innovation in employment preparation and entrepreneurial support, positioning IEM at the forefront of institutions advancing decent work opportunities and economic prosperity for 2023 and beyond.

Photo Gallery



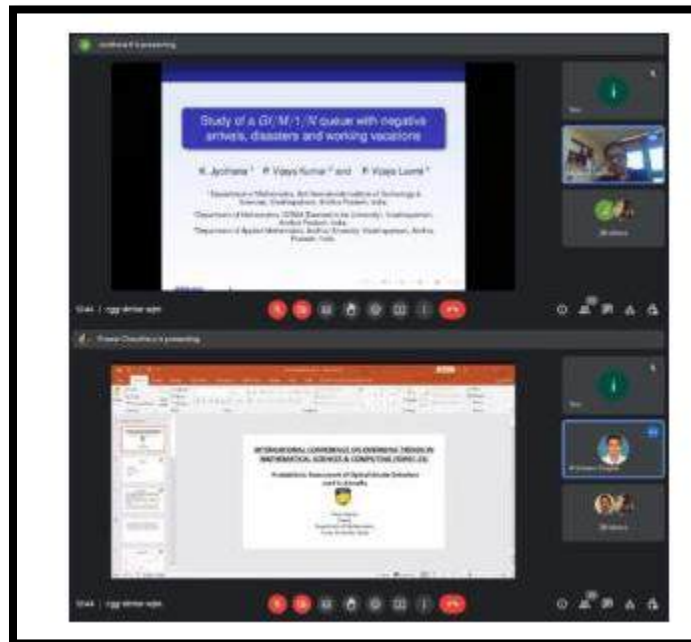
Celebration of youth day



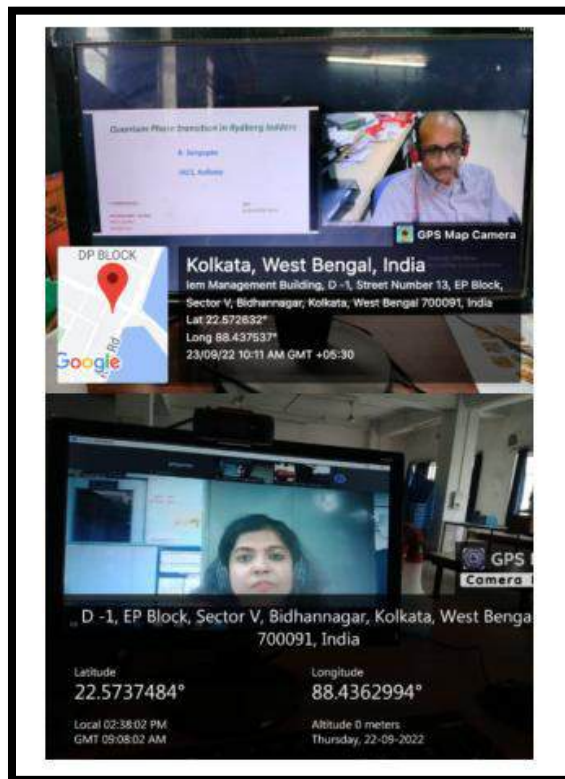
Conference (IC- IEM 2023) was organized on 25th March 2023 by the BBA Departments of IEM



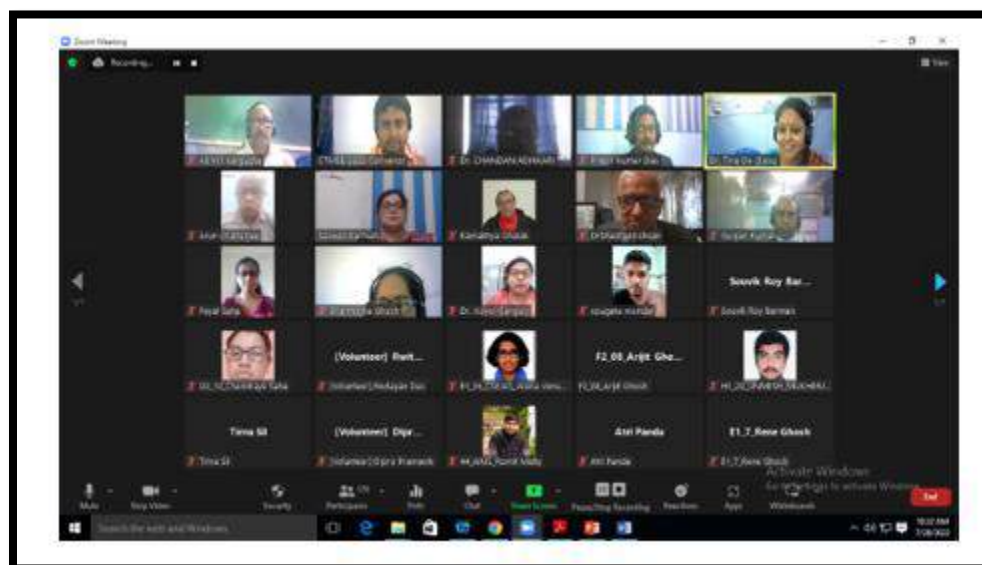
3rd International Conference on Innovations in Energy Management and Renewable Resources (IEMRE-2023) from 16th February to 18th February 2023



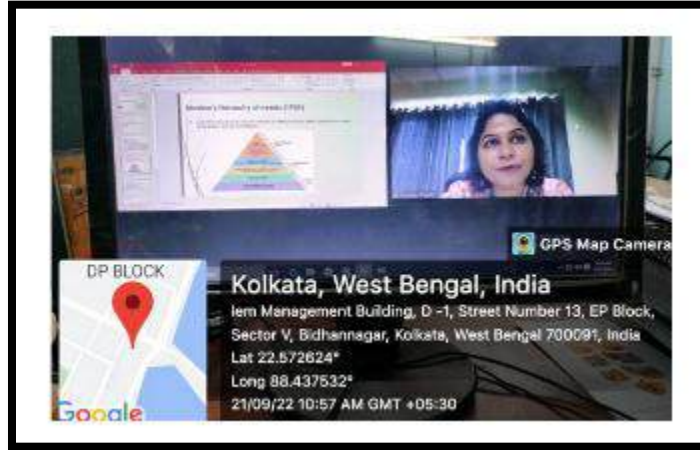
Department of Basic Science & Humanities, IEM, Kolkata is organizing the Fourth International Conference on Emerging Trends in Mathematical Sciences & Computing (IEMSC-23) from 3rd - 5th February 2023



International Conference on Advanced Physics – IEMPHYS 2022 is organized by the Department of Basic Science and Humanities



4th International Conference on Current Trends in Materials Science & Engineering (CTMSE 2022)



Prof. Dr. Priyanka Triparthi of IIT Patna talked about various aspects of language. During the session, she highlighted on multiple theories like Maslow's Hierarchy of Needs Theory, Trait Theory to make the students understand the fundamental needs of learning languages.



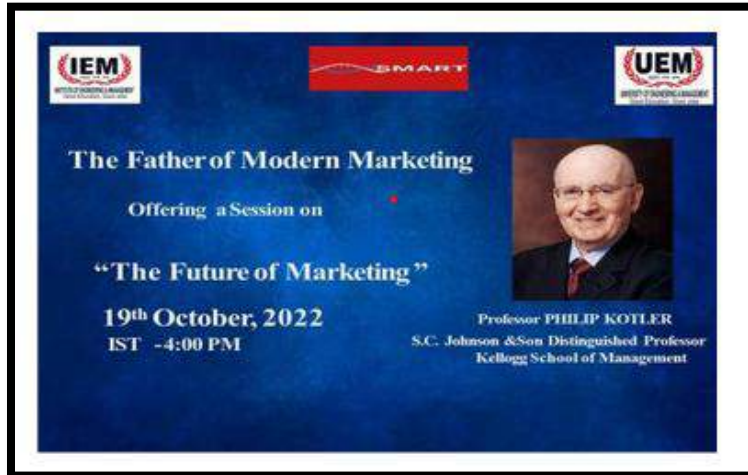
Various laboratory facilities



Various laboratory facilities



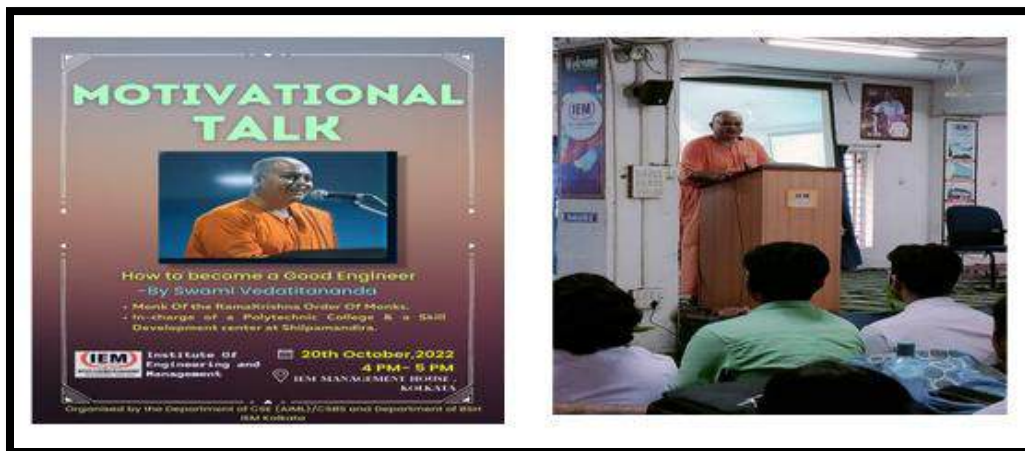
Lecture by Nobel Laureate, Prof. Konstantin Novoselov



Distinguished Foreign Lecture by Prof. Philip Kotler, known as the "Father of Modern Marketing,"



Lecture by Eminent Persons: Worldview Sessions and Interactive Talks



Swami Vedatitananda of Belur Shilpamandir came and delivered a motivational and inspirational talk for the newly inducted students at Management House auditorium



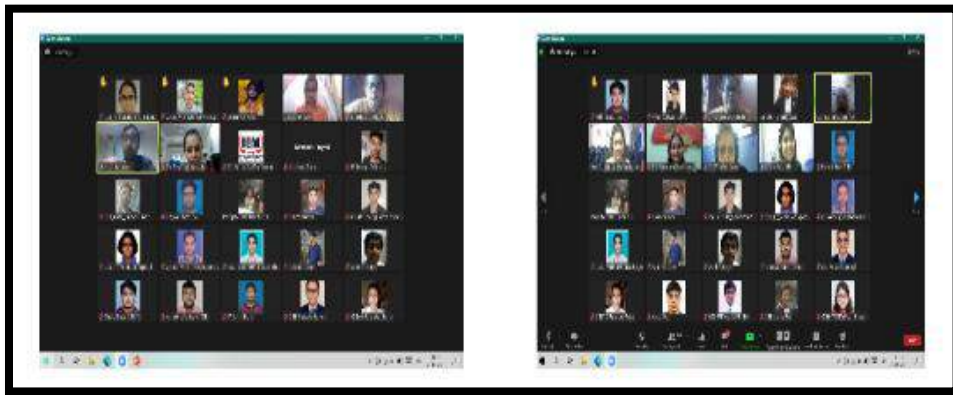
Dr. Sanghamitra Poddar delivered a lecture on “Anti ragging Committee”



Dr. Arun Kumar Bar (Principal, Institute of Engineering & Management, Kolkata) delivered his talk on “Internal compliance Committee”.



Dr. Binu James Mathew, College of Banking and Finance, Oman gave his engaging Talk on the “Maladies of Online Teaching Learning Process and Strategies to Shift to a Flipped Classroom Model”



An interactive and motivational session conducted by IEM Alumnus Mr. Alomoy Banerjee during the Student Induction Program



Workshop on cloud computing

THE NORTHCAP UNIVERSITY

ENGAGE 3.0

1-2 NOVEMBER 2023

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 engage.ncuindia.edu

CONTACT:
Manya Jain : 9818029660
Shivam Kalra : 9667742733



Google DSC IEM collaborated with The NorthCap University to bring ENGAGE 3.0



Khuli kitab event

Sustainable Development Goal 9: Industry, Innovation and Infrastructure

Vision, Mission, and Strategic Objectives

Vision Statement:

IEM seeks to establish excellent research and innovation infrastructure that enables students, faculty, and industry partners to develop sustainable technologies and industrial solutions advancing global development objectives.

Mission Statement:

The mission for SDG 9 centers on building resilient, technology-enabled infrastructure for research and innovation, fostering sustainable industrial practices through academic-industry collaboration, promoting technological advancement in engineering disciplines, and creating innovation ecosystems that bridge the gap between academic research and industrial application.

Strategic Objectives for 2022-23:

1. Establish 10+ specialized research and innovation laboratories supporting emerging technology domains.
2. Facilitate 200+ research projects with industry collaboration and sustainable technology focus.
3. Generate INR 2680+ lakhs revenue from consultancy and industrial training services.
4. Support 280+ research publications and 95+ patent applications aligned with sustainable innovation.
5. Conduct 60+ workshops on research methodology, innovation, and emerging technologies.
6. Implement sustainable infrastructure practices across campus operations including energy audits and environmental management.
7. 5+ Centers of Excellence in collaboration with industry partners for technology advancement.

Research Infrastructure and Innovation Ecosystems

Advanced Research Laboratories:

IEM has invested significantly in state-of-the-art research infrastructure supporting innovation across multiple technology domains. The institution houses specialized laboratories enabling cutting-edge research in areas critical to sustainable development:

Established Innovation and Research Facilities:

1. **Augmented and Virtual Reality Lab** - Supporting immersive technology development and industrial applications
2. **Advanced Material Research Lab** - Developing sustainable materials for industrial applications
3. **Antenna Design Lab** - Advancing telecommunications and wireless technology infrastructure
4. **IoT Lab** - Enabling Internet of Things research for smart infrastructure development
5. **Information Security and Application Development Lab** - Securing critical digital infrastructure
6. **Astronomical Research Lab** - Supporting foundational research in space technology and astronomy

These specialized facilities position IEM at the forefront of technological innovation, providing students and faculty with resources to develop solutions addressing global challenges in sustainable industrialization and infrastructure resilience.

Innovation and Entrepreneurship Development Cell (IEM-IEDC):

Previously funded by the Department of Science and Technology (DST), Government of India, the IEM-IEDC serves as the institutional hub for innovation-driven research and entrepreneurial activities. During 2022-23, the cell supported transformation of research into viable industrial innovations through:

- Prototype development facilities equipped with advanced tools and technologies
- Incubation support for technology-based startups
- Intellectual property protection guidance and patent filing assistance
- Seed funding mechanisms for technology commercialization
- Networking platforms connecting researchers with industry partners and investors

Research Output and Innovation Metrics:

During 2022-23, IEM generated significant research output through:

1. **Research Publications:** Faculty publications in peer-reviewed journals contributed to advancing technological knowledge and sustainable practices

2. **Patent Applications:** Intellectual property protection through patent filing demonstrates innovation capacity across multiple technology domains
3. **Research Projects:** 200+ active research projects involving faculty-student collaboration and industry partnerships
4. **Consultancy Services:** INR 2680.603 lakhs generated from consultancy and industrial training services, demonstrating application of research to solve industrial problems

Technical Facilities and Advanced Laboratories

Information and Communication Technology (ICT) Infrastructure:

IEM maintains comprehensive ICT infrastructure supporting research, teaching, and innovation:

Computing and Network Resources:

- Internet Connectivity: 2.4 GBPS bandwidth enabling high-speed research data access and collaboration
- Computer Systems: 2,426 computers across campus for academic and research purposes
- ICT-Enabled Classrooms: 84 classrooms equipped with modern technology tools
- Smart Learning Infrastructure: 2 Smart boards for interactive teaching and research demonstrations

Virtual and Remote Research Facilities:

- Zoom, Google Meet, Go-to-Webinar, Microsoft Teams facilities for virtual collaboration and research seminars
- Virtual laboratory software: LTSpice, Vesta, Logisim, Weka, R, Anaconda, MATLAB enabling simulation-based research
- Digital Library Access: Comprehensive e-journal and database access (J-Gate, IEEE, Springer, ProQuest, Scopus, Web of Science)

Research Support Infrastructure:

- 15 Seminar rooms for research discussions and industry consultations
- 158 LCD Projectors across campus for research presentations
- Microphone systems: 196 units; Sound systems: 130 units for seminars and research conferences

Laboratory Equipment and Software:

Faculty and students access industry-standard software and tools supporting research across engineering disciplines:

1. **MATLAB** - Enabling mathematical modeling and algorithm development
2. **COMSOL** - Supporting advanced simulation research
3. **CAD Software** - Facilitating design research and prototyping
4. **Programming Frameworks** - Python, Java, and emerging technology stacks for software research
5. **Data Analysis Tools** - Statistical and machine learning software for research analysis

Industry Partnerships and Sustainable Industrialization

Collaborative Research and Industry Integration:

IEM maintains strategic partnerships with industries, government agencies, and international institutions fostering sustainable industrial development:

Industry Collaboration Mechanisms:

1. **Memoranda of Understanding (MoUs):** 18 functional MoUs with institutions of national and international importance, universities, industries, and corporate houses
2. **Research Collaborations:** 3,214 collaborative activities during 2022-23 including:
 - Joint research projects addressing industrial challenges
 - Faculty expertise sharing and technology transfer
 - Student internships and project work in industrial settings
 - Industry-sponsored research initiatives
3. **Consultancy Services:** INR 2680.603 lakhs revenue generated from industrial consultancy and training services, demonstrating research application to industrial problems
4. **Industry Expert Participation:** External industry members serve as final-year project guides, ensuring curriculum relevance and research alignment with industrial needs

Sustainable Industrialization Initiatives:

The institution promotes sustainable industrial practices through:

1. **Curriculum Integration:** Courses in Environmental Science, Sustainability, and Green Engineering integrated across disciplines

2. **Green Manufacturing Research:** Research projects focused on sustainable production methods, waste reduction, and circular economy principles
3. **Energy and Resource Efficiency:** Studies and projects addressing industrial energy optimization and resource conservation
4. **Environmental and Energy Audits:** Regular institutional assessments ensuring operational sustainability
5. **Waste Management Initiatives:** Research and implementation of waste reduction and recycling programs

Emerging Technology Focus:

Research infrastructure supports development in critical areas aligned with sustainable industrialization:

- **Advanced Manufacturing** - Additive manufacturing and precision engineering research
- **Renewable Energy Technologies** - Solar and sustainable energy research initiatives
- **Data Analytics and AI** - Applied artificial intelligence for industrial optimization
- **Smart Infrastructure** - IoT and connected systems for intelligent industrial facilities
- **Cybersecurity** - Infrastructure security research protecting critical systems

Data and Metrics

Performance Indicator	Annual Target	Achievement
Research and Innovation Labs	8	10+
Research Projects with Industry Collaboration	180	200+
Consultancy Revenue (INR Lakhs)	2500	2680.603
Faculty with PhD/Research Qualifications	120	128
Research Publication Submissions	270	280+
Patent/IPR Applications	50	95+
Innovation Workshops Conducted	50	60+
Industry-Academia Collaboration Activities	3000	3214
Students in Internships/Projects	4200	4411
MoUs with Industries and Institutions	15	18

Challenges, Response, and Mitigation

Challenges:

1. Rapid technological evolution requiring continuous infrastructure upgrades and equipment replacement
2. Limited funding for cutting-edge research facilities and emerging technology domains
3. Balancing academic research focus with industrial application requirements
4. Attracting industry partnerships for research in nascent technology areas
5. Infrastructure sustainability amid rising operational and maintenance costs
6. Ensuring equitable access to advanced research facilities for all students and faculty
7. Maintaining infrastructure relevance to industry 4.0 and digital transformation trends

Mitigation Responses:

1. **Quarterly Infrastructure Review:** Systematic assessment and planning for technology upgrades ensuring contemporary facility standards
2. **Diversified Funding Mechanisms:** Research grants from DST, UGC, and industry partnerships supplement institutional resources
 - Seed money grants: INR 267.30 lakhs provided to 78 faculty members for research projects
 - Research project funding from UGC DAE CSR and other agencies
3. **Industry-Aligned Research:** Regular interaction with industrial partners ensures research focus on commercially viable and sustainable technologies
4. **Strategic Laboratory Development:** Phased establishment of specialized labs based on industry demand and research opportunities
5. **Preventive Maintenance Programs:** Systematic equipment maintenance extending infrastructure lifespan and reducing operational disruptions
6. **Open Access Infrastructure:** Laboratory facilities made available to all students through scheduled access and training programs
7. **Technology Adoption:** Continuous evaluation and integration of emerging tools and platforms supporting contemporary research methodologies
8. **Faculty Development:** 128 faculty members with PhD qualifications and 2,446 years of cumulative institutional teaching experience supporting research mentorship

Future Roadmap and Strategic Plan (2023-24 and Beyond)

1. Establish 5 new Centers of Excellence in collaboration with industry leaders in artificial intelligence, sustainable materials, and advanced manufacturing
2. Develop 100+ collaborative research projects addressing UN Sustainable Development Goals
3. Increase consultancy revenue to INR 2850+ lakhs through expanded industry partnerships
4. Create dedicated innovation incubation facilities with venture capital connectivity for technology commercialization
5. Establish international research collaborations and student/faculty exchange programs with leading technical universities
6. Develop industry 4.0 ready infrastructure supporting digital manufacturing and smart technologies
7. Implement smart campus infrastructure including IoT-enabled resource management and sustainable facility operations
8. Establish patent portfolio development program targeting 100+ patent applications annually
9. Create research publication excellence programs targeting peer-reviewed journals and high-impact publications
10. Develop sustainability-focused research clusters addressing climate change, renewable energy, and circular economy challenges

Conclusion

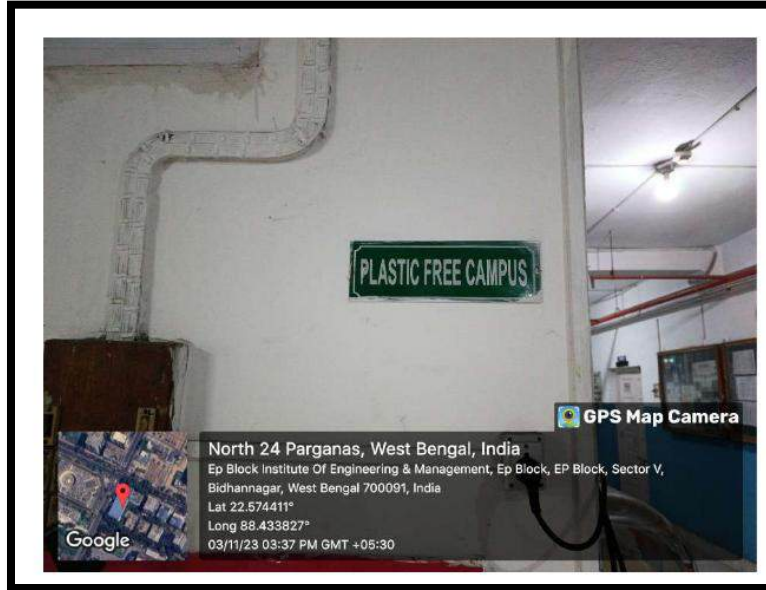
IEM Kolkata's strategy for SDG 9, Industry, Innovation, and Infrastructure—demonstrates its commitment to sustainable industrialization and technological advancement. Through investment in research infrastructure, industry partnerships, and emerging technology initiatives, the institution fosters innovation and resilient infrastructure development. By integrating advanced research, entrepreneurship support, curriculum innovation, and sustainability practices, IEM empowers students and faculty to contribute to industrial progress, positioning itself as a leader in advancing SDG 9 objectives for 2024 and beyond.

Photo Gallery



*Professor Subhamoy Ray, a distinguished faculty member at the Institute of Engineering
&*

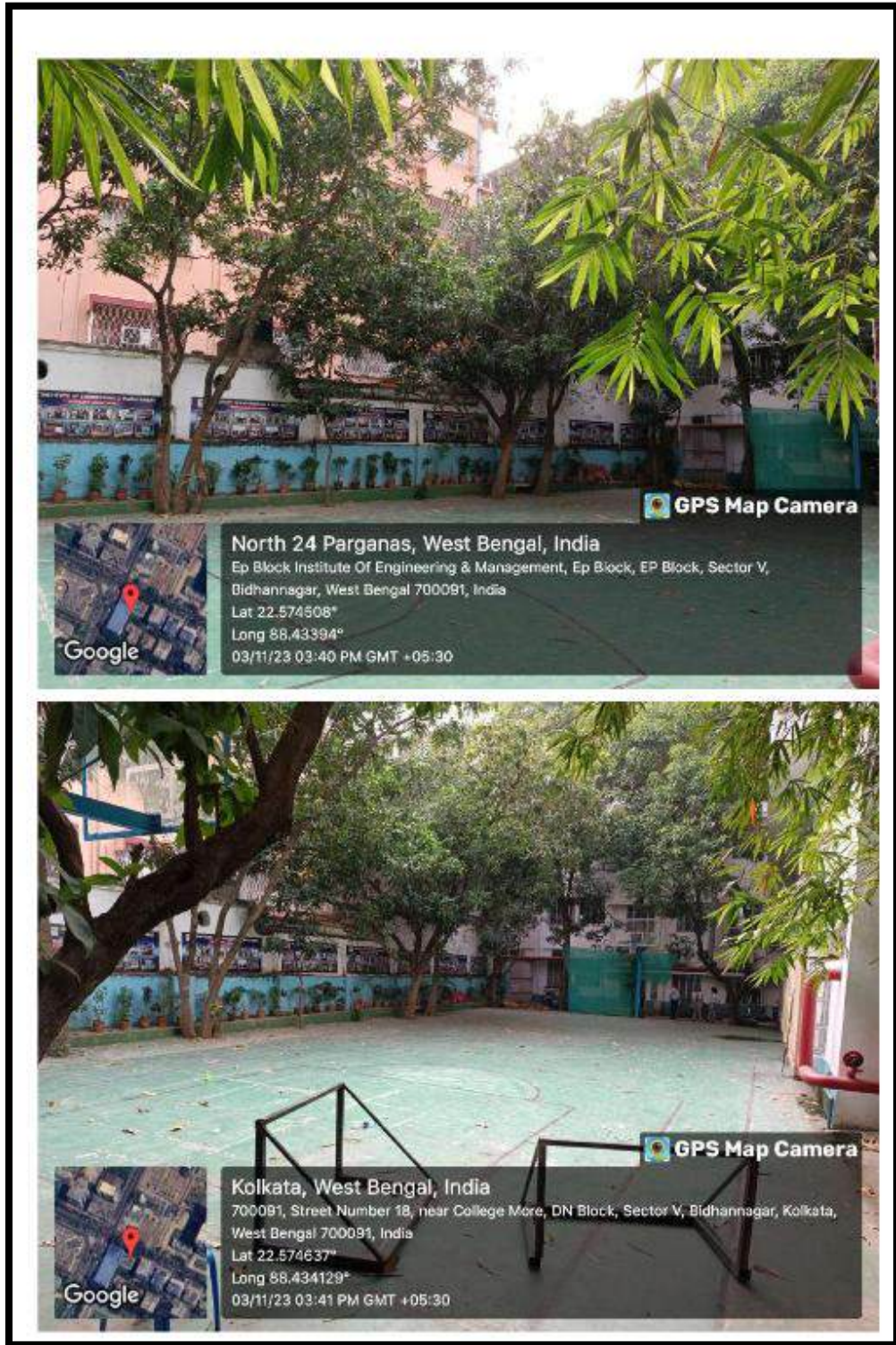
*Management (IEM), has demonstrated exceptional innovation by creating a remarkable
bicycle powered by a detachable waterproof battery.*



The Institute of Engineering & Management (IEM) has taken a commendable stride towards environmental sustainability by transforming its campus into a plastic-free zone.



Disable friendly infrastructural changes to incorporate inclusivity



Green campus infrastructure

Sustainable Development Goal 10: Reduced Inequalities

Vision, Mission, and Strategic Objectives

Institutional Vision

To create an inclusive learning environment that empowers all individuals regardless of socio-economic background, gender, ethnicity, or disability.

Institutional Mission

To deliver equitable education, implement inclusive policies, and promote social justice through awareness, capacity building, and community outreach.

Strategic Objectives for 2022-23

- Enhance scholarships and financial aid targeted to underprivileged students
- Strengthen support services for marginalized groups including persons with disabilities
- Promote gender equity and prevent discrimination on campus
- Expand educational and skill development opportunities for economically disadvantaged groups
- Foster inclusive growth through community engagement and social welfare programs

Institutional Overview

- **Total student enrollment:** 5,515 students across all programs
- **Full-time teachers:** 349 faculty members
- **Students admitted during the year:** 1,623
- **Final year students successfully passed:** 1,507

Inclusive Education Initiatives

Value-Added Courses and Skill Development:

- **1,590 value-added courses** offered for imparting transferable and life skills
- **9,383 students enrolled** in these value-added courses
- **4,411 students** undertook field work, projects, and internships
- **619 students benefitted** from scholarships and financial aid

- **4,285 students benefitted** from guidance and coaching for competitive examinations and career counseling

Specialized Learning Support:

- 9 bridge courses conducted to meet curriculum requirements
- Special programs organized for both slow learners (scoring less than 55 marks) and advanced learners
- GATE coaching classes provided for advanced learners interested in higher studies
- Access to free online courses through multiple platforms:
 - LinkedIn Learning: 18,000 courses
 - NPTEL: 2,000+ courses
 - Coursera: Various courses
 - IEM Learning: 200 courses

Curriculum Integration:

Institute integrated cross-cutting topics across all programs:

- Gender sensitivity
- Human values and professional ethics
- Environmental studies
- Constitution of India
- Values and ethics courses

Community Engagement and Social Welfare

Extension Activities

Overall Participation:

- **35 extension and outreach programs** conducted through collaboration with NGOs
- **5,489 students** participated in extension activities
- **60 workshops/seminars** organized on research methodology, entrepreneurship, and skill development

Inner Wheel Club of IEM Projects (2022-2023)

The Inner Wheel Club of IEM conducted six major social welfare projects during the year:

1. Blood Donation Camp (July 2022)

- Date: 1st July 2022 (Doctors Day)
- Activity: Blood donation camp for community health

2. Az Mahotsav - Freedom Project (August 2022)

- Date: 15th August 2022
- Beneficiaries: 15 slum children in Salt Lake
- Investment: Rs. 2,000
- Support provided: Stationery, food packets, and books

3. Dugga Project (September 2022)

- Date: 23rd September 2022
- Venue: SAMPARK, M.G. Road, Near Tollygunge Metro
- Beneficiaries: 44 underprivileged students
- Investment: Rs. 10,000
- Support provided: New clothes and quality time before puja celebration

4. Amar Kaali Project (October 2022)

- Date: 20th October 2022
- Beneficiaries: 54 children
- Investment: Rs. 10,000
- Support provided: Clothes, crackers, and sweets for celebration

5. Batsal - Children's Day (November 2022)

- Date: 14th November 2022
- Venue: Save the Children Home, Thakurpukur, Kolkata
- Beneficiaries: 150 girl children
- Investment: Rs. 3,000
- Support provided: Clothes and food packets supporting their better future

6. Santa Project (December 2022)

- Date: 1st December 2022
- Beneficiaries: 100 poor and needy families
- Investment: Rs. 5,000
- Support provided: Clothes distributed to families in slum behind Eco Park

Total Inner Wheel Club Impact:

- **Total beneficiaries: 363 individuals** (excluding blood donation camp participants)
- **Total investment: Rs. 30,000**
- **Focus areas:** Education, Health, and Social welfare (E, H, S categories)

Additional Social Development Activities**Collaborations with NGOs and Clubs:**

- Lions Club of Kolkata IEM
- Rotary Club of Salt Lake Silicon Valley
- Inner Wheel Club of IEM
- Kolkata Nivedita Shakti

Activities organized:

- Health check-up camps
- Hygiene and health workshops
- Cleanliness drives
- Visits to child care and old age homes
- Tree plantation drives
- Pet society initiatives (care for 150 stray dogs on campus)

Gender Equity and Inclusivity**Institutional Commitment****Leadership Representation:**

- Women appointed in key leadership roles: Registrar, Principal, Deans, Head of Departments, Placement Cell
- Gender-neutral uniforms implemented
- Co-educational institution ensuring equal opportunities
- Selection of committee heads based on merit, not gender, race, or religion

Internal Complaints Committee (ICC):

- Conducts practical gender sensitivity activities
- Organizes field work and community outreach
- Implements awareness campaigns

- Available 24/7 with emergency contact displayed throughout campus

Support Services:

- Counseling services available
- Self-defense classes organized regularly
- Equal opportunities provided to all students

Infrastructure and Accessibility

Physical Infrastructure

Academic Facilities:

- 99 classrooms (84 ICT-enabled)
- Multiple specialized laboratories
- 15 seminar halls
- 2,426 computer systems
- 158 LCD projectors
- 2.4 GBPS internet connectivity
- Wi-Fi coverage throughout campus
- 987 CCTV cameras for safety and security

Accessibility Provisions:

- Ramps and lifts for easy access to classrooms and centers
- Disabled-friendly washrooms
- Tactile path lights and signage
- Assistive technologies including screen-reading software
- Human assistance available (reader, scribe services)

Regional and Cultural Inclusivity

Cultural Recognition

Regional Festival Celebrations:

- Special leave granted to Bihar and Jharkhand students during Chhath festival
- Various religious festivals celebrated: Christmas, Eid, Mahavir Jayanti, Buddha Purnima, Durga Puja, Holi, Doljatra, Dandiya Utsav (Navratri)

- Ravindra Jayanti celebration

Language Support:

- Vernacular language use encouraged in classrooms for doubt clarification
- Foreign language courses offered (French and Chinese)
- Multi-lingual events organized throughout the year

Special Events:

- Yoga Day
- Ethnic Day
- Youth Day
- Children's Day
- Teachers Day
- International Mother Language Day
- Independence Day and Republic Day celebrations
- Gandhi Jayanti with Swachh Bharat Abhiyan initiatives

Research, Innovation, and Entrepreneurship

Innovation Ecosystem

Startup Support:

- Over 172 student startups nurtured during the year
- 513 innovations incubated with mentorship
- Seed money grants totaling Rs. 267.30 lakhs provided to teachers for research
- Innovation and Entrepreneurship Development Cell (IEM-IEDC) operational

Research Infrastructure:

- Multiple specialized laboratories established
- 128 faculty recognized as research guides
- 78 teachers with active research projects during the year
- 95+ patents filed from innovation labs

Student Welfare and Support

Financial Support System

Medical and Emergency Assistance:

- System created for providing financial support for critical medical requirements of students, alumni, and staff members
- Hospital bill reimbursement beyond capacity
- Free medical check-ups through MoU with Dr. Sudarshan Chakrabarti Medical Trust

Scholarships and Aid:

- 619 students benefitted from scholarships and financial aid during the year
- Support provided to underprivileged students for educational materials

Faculty and Staff Welfare

Comprehensive Benefits:

- Pension scheme for all faculty and staff
- Interest-free loans available
- EPF (Employee Provident Fund) scheme
- Free vegetarian lunch
- Festive bonus
- Foreign visit incentives
- Tuition fee reimbursement for children of employees

Leave Provisions:

- 7 casual leaves per year
- 33 earned leaves per year
- 7 medical leaves per year (extended for severe medical situations)
- 6 months maternity leave for women employees
- 2 weeks paternity leave for male employees
- Study leave for higher education and special training

Data and Metrics

Performance Indicator	Achievement
Total student enrollment	5,515
Full-time teachers	349

Value-added courses offered	1,590
Students enrolled in value-added courses	9,383
Students in field work/projects/internships	4,411
Final year students passed	1,507
Scholarship beneficiaries	619
Students receiving guidance/coaching	4,285
Extension and outreach programs	35
Students participating in extension activities	5,489
Workshops/seminars conducted	60
Student startups supported	200+
Innovations incubated	513
Inner Wheel Club beneficiaries	363
Inner Wheel Club investment	Rs. 30,000
Computer systems available	2,426
CCTV cameras for safety	987

Partnerships and Collaborations

Educational Partnerships

E-Learning Platforms:

- MoU with Coursera for free licenses to all students
- Partnership with LinkedIn Learning (18,000 courses)
- Access to NPTEL (2,000+ courses)
- IEM Learning platform (200 courses)

Community and Social Organizations

NGO Collaborations:

- Lions Club of Kolkata IEM
- Rotary Club of Salt Lake Silicon Valley
- Inner Wheel Club of IEM
- Kolkata Nivedita Shakti

- VIBHA

Government and Academic Bodies:

- Department of Science and Technology (DST)
- Ministry of MSME
- West Bengal Government
- Jadavpur University

Challenges, Institutional Responses, and Mitigation Strategies

- **Curriculum Updates:** Benchmarks against international standards and industry collaborations keep courses current and skill-focused; faculty training addresses tech advancements.
- **Research Funding:** Internal seed grants (Rs. 267.30 lakhs) plus external schemes support faculty/student research and outreach.
- **Diverse Learners:** Free online courses and digital platforms enable self-paced, inclusive learning for slow/advanced students.
- **Mental Health:** Counseling, awareness campaigns, and NGO partnerships promote stigma-free well-being.
- **Cultural Inclusion:** Policies support regional festivals, vernacular languages, and inter-cultural events for harmony.
- **Community Outreach:** NGO collaborations and 200+ startups (513 innovations) enable resource-efficient welfare initiatives and real-world student engagement.

Future Roadmap and Strategic Plan (2023-24 and Beyond)

- Expand vocational training programs targeting underprivileged youth and specially-abled individuals to boost employability
- Increase outreach and humanitarian support activities through strengthened collaboration with Inner Wheel Club, Lions Club, and Rotary Club
- Enhance scholarship programs and financial aid for economically disadvantaged students

- Strengthen partnerships with educational institutions, NGOs, and government bodies for technology access and sustainable livelihood initiatives
- Promote cultural inclusivity through more community events, awareness campaigns, and mental health initiatives
- Expand digital learning platforms to reach diverse learners with flexible education resources
- Increase the number of bridge courses and support programs for slow learners
- Develop more specialized innovation labs to support student entrepreneurship

Conclusion

IEM Kolkata's SDG 10 efforts reduced inequalities through inclusive education, scholarships for underprivileged students, and accessible infrastructure. Community initiatives, health camps, and collaborations with NGOs, Rotary, and Lions Clubs empowered marginalized groups, supporting 5,489 in extension activities. Skill development via 1,590 value-added courses and global platforms enhanced employability. These measures built social cohesion and equity. Future plans include expanding vocational training, scholarships, and outreach for sustained inclusive growth.

Photo Gallery

Name of Project: Dugga

Date of Project: 23rd September 2022

Venue: SAMPARK - 96/3/1 M.G. Road, Near Tollygunge Metro, Kolkata – 700082

Time: 5 p.m.

**Total cost involved: Rs. 10,000, No. of Beneficiaries: 44 Category of "SHEROES":
E, H & S**

We shared our joy of celebration with 44 underprivileged students before puja by giving new clothes and spending quality time with them.



Name of Project: Amar Kaali

Date of Project: 20th October 2022

**Total cost involved: Rs. 10,000 No. of Beneficiaries: 54 Category of "SHEROES":
E, H & S**

We shared our joy of celebration with 54 children by giving oldclothes, crackers and sweets with them.



Name of the Club: *IWC IEM KOLKATA*

Name of District: District 329

Name of President: Anindita Ray

Name of DC: Shampa Banerji

Name of Project: Vandana

Date of Project: 26th January 2023

Nature of the Project: Spread Literacy

Total cost involved: Rs.2000

No. of Beneficiaries: 20

Category of "SHEROES": E, H & S

IEM-UEM decided to gift copies and stationery to underprivileged children in Salt Lake. "Hathey Khori" was very eventful as we gave slates to little children and introduced them to the world of education. In the presence of Saraswati Ma, we helped them to write for the first time and promise to enlighten them through our initiative. We gifted them Books, Colours, Food Packets.



Sustainable Development Goal 11: Sustainable Cities and Communities

Vision, Mission, and Strategic Objectives

Institutional Vision

To create an inclusive learning environment that empowers all individuals and contributes to sustainable community development.

Institutional Mission

To assist students to understand and enjoy the seamless nature of knowledge and encourage them to apply acquired knowledge to practical use, becoming socially responsible citizens who contribute to sustainable urbanization and community well-being.

Strategic Objectives for 2022-23

- Develop and maintain sustainable campus infrastructure with green buildings and energy-efficient systems
- Promote research and innovation in sustainable urban development and environmental conservation
- Engage with local communities to address urban challenges and improve quality of life
- Foster partnerships with NGOs and civil society organizations for sustainable community solutions
- Educate and empower students to become agents of change in creating sustainable cities
- Implement waste management systems, water conservation measures, and pollution reduction initiatives
- Support accessibility and inclusivity in campus infrastructure and services

Institutional Overview

- **Total student enrollment:** 5,515 students across all programs
- **Full-time teachers:** 349 faculty members
- **Campus type:** Co-education, Urban location
- **Accreditation:** NAAC Cycle 1, Grade A, CGPA 3.25 (2017)
- **Autonomous status:** Granted on 12/02/2019

Infrastructure and Physical Facilities

Academic Infrastructure:

- **99 classrooms and seminar halls** (84 ICT-enabled classrooms, 15 seminar halls)
- **2,426 computer systems** for academic purposes
- **158 LCD projectors and screens** for teaching-learning
- **2.4 GBPS high-speed internet connectivity**
- **202 Wi-Fi routers** deployed across campus and hostels
- **52 televisions** installed at prominent locations
- **987 CCTV cameras** for safety and security monitoring
- **196 microphones and 130 sound systems** for events
- **2 Smart Boards** for interactive learning

Research and Laboratory Facilities:

- 52 specialized laboratories for hands-on learning
- Multiple innovation labs: AR-VR Lab, IoT Lab, Advanced Material Research Lab, Antenna Design Lab, Information Security Lab
- IEM Institute of Fundamental Research established
- Innovation and Entrepreneurship Development Cell (IEM-IEDC) operational

Library and Digital Resources:

- Central library with over 845,000 books and e-books
- Digital library with extensive e-resources:
 - J-Gate: 29,306 full-text journals
 - EBSCO: 1,064 full-text titles
 - Delnet, NDLI access
 - IEM Learning platform: 200 courses
 - NPTEL: 2,000+ courses
 - Coursera: ~5,000 courses
 - LinkedIn Learning: 18,000 courses
- Library automation using LSEase (2005) and KOHA (2017) software
- 24/7 library access with LAN facilities

Environmental Sustainability Initiatives

Green Campus Development

Campus Green Coverage:

- Strategic landscaping with emphasis on green spaces
- Tree plantation drives conducted throughout the year
- Ban on plastic use across campus
- Pedestrian-friendly pathways
- Restricted automobile entry in certain areas
- Bicycle and battery-powered vehicle usage encouraged

Energy Conservation Measures:

- LED bulb installation throughout campus
- Power-efficient equipment deployment
- Sensor-based energy conservation systems
- Timer circuits for lighting management
- Smart lighting systems implemented
- Regular energy audits conducted

Waste Management Systems

Solid Waste Management:

- Strategic placement of garbage collection bins
- Daily waste collection and disposal through NKDA (Newtown Kolkata Development Authority)
- Emphasis on recycling to minimize environmental impact

E-waste Management:

- Partnership with Hulladek Recycling Pvt. Ltd.
- Regular e-waste recycling every six months
- Documented progress:
 - 2019-2020: 486 kg
 - 2020-2021: 522 kg
 - 2021-2022: 1,344.26 kg
 - 2022-2023: 1,752.60 kg
- Repair of defective electronic devices to extend utility

- Safe disposal following state government guidelines

Liquid Waste Management:

- Aerobic sewage treatment technique for wastewater
- Treated wastewater utilized for gardening
- Separate pipe system for rainwater distribution

Hazardous Waste Management:

- Use of dilute solutions in laboratory settings
- Responsible disposal through neutralization
- Student training in safe chemical waste handling

Water Conservation Initiatives

- Rainwater harvesting systems installed
- Bore well and open well recharge facilities
- Wastewater recycling for gardening purposes
- Maintenance of water bodies on campus
- Artificial groundwater recharge to augment reservoirs
- Distribution system optimization to reduce demand

Accessible and Inclusive Infrastructure

Disabled-Friendly Facilities

Physical Accessibility:

- Ramps and lifts for easy access to classrooms and centers
- Disabled-friendly washrooms
- Tactile path lights for visually impaired
- Display boards and signposts throughout campus

Assistive Technologies:

- Screen-reading software for visually impaired students
- Mechanized equipment where needed
- Accessible website design
- Human assistance available (reader, scribe services)
- Soft copies of reading materials provided

Provision for Enquiry and Information:

- Designated help desks
- 24/7 security officers (17 total)
- Electronic surveillance with 987 CCTV cameras
- Hostel entry and exit monitoring

Academic Integration and Curriculum

Environmental Education

Environmental Studies Course:

- Offered across all undergraduate programs
- Focus on environmental and sustainability issues
- Activities include seminars, workshops, guest lectures, field excursions, tree plantation

Curriculum Integration:

- Constitution of India
- Economics
- Organizational Behavior
- Principles of Management
- Values and Ethics courses
- Professional Ethics
- Gender sensitivity integration

Skill Development and Value-Added Programs

Value-Added Courses:

- **1,590 value-added courses** offered for transferable and life skills
- **9,383 students enrolled** in value-added courses
- Courses include: Essential Skills for Professionals, Skill Development for Professionals
- Foreign language courses: French and Chinese

Practical Learning:

- **4,411 students** undertook field work, projects, and internships

- **619 courses** focusing on employability and entrepreneurship
- Industry and foreign certification courses mandatory for all students
- Minimum 15 credit points required for degree

Research and Innovation

Research Output and Funding

Research Projects and Grants:

- **78 teachers** with active research projects during the year
- **Rs. 267.30 lakhs** provided as seed money to faculty for research
- **Rs. 38 crore** in grants received from government and non-governmental agencies
- **128 faculty members** recognized as research guides

Publications and Patents:

- **1009 research papers** published in scopus journals
- **233 books and book chapters** published
- **20215 citations in Scopus** during the year
- **h-index of 144.36** (Scopus)
- Patent filing support through IPR Cell
- Conference registration fees reimbursed for accepted papers

Innovation Ecosystem:

- Over **172 student startups** nurtured annually
- Innovation and Entrepreneurship Development Cell (IEM-IEDC) active
- Multiple innovation labs supporting cutting-edge technology research
- Specialized labs: IoT, AI, Machine Learning, AR-VR, Blockchain, Cyber Security

Research Conferences and Events

Workshops and Seminars:

- **60 workshops/seminars** conducted on research methodology, entrepreneurship, and skill development
- Over **45 international conferences** hosted by IEM
- Annual tech fests: INNOVACION, SYTRON, SRIJAN, SMART Makers Fair
- Model exhibitions and competitions organized regularly

Community Engagement and Extension Activities

Extension Programs Overview

Institutional Outreach:

- **35 extension and outreach programs** conducted through NSS/NCC
- **5,489 students** participated in extension activities
- Collaboration with NGOs: Lions Club, Rotary Club, Inner Wheel Club, Kolkata Nivedita Shakti, VIBHA

Community Activities:

- Health check-up camps
- Hygiene and health workshops
- Cleanliness drives (Swachh Bharat initiatives)
- Visits to child care and old age homes
- Blood donation camps
- Tree plantation drives
- AIDS awareness programs
- Gender sensitization programs
- Pet society: Care for 150 stray dogs on campus

Inner Wheel Club of IEM Projects (2022-2023)

The Inner Wheel Club of IEM conducted six major community welfare projects during the year under the theme "Work Wonders":

1. Blood Donation Camp (July 2022)

- **Date:** 1st July 2022 (Doctors Day)
- **Activity:** Blood donation camp for community health

2. Az Mahotsav - Freedom Project (August 2022)

- **Date:** 15th August 2022
- **Beneficiaries:** 15 slum children in Salt Lake
- **Investment:** Rs. 2,000
- **Support provided:** Stationery, food packets, and books

3. Dugga Project (September 2022)

- **Date:** 23rd September 2022
- **Venue:** SAMPARK, M.G. Road, Near Tollygunge Metro, Kolkata
- **Time:** 5 p.m.
- **Beneficiaries:** 44 underprivileged students
- **Investment:** Rs. 10,000
- **Support provided:** New clothes and quality time before puja celebration

4. Amar Kaali Project (October 2022)

- **Date:** 20th October 2022
- **Beneficiaries:** 54 children
- **Investment:** Rs. 10,000
- **Support provided:** Clothes, crackers, and sweets for celebration

5. Batsal - Children's Day (November 2022)

- **Date:** 14th November 2022
- **Venue:** Save the Children Home, Thakurpukur, Kolkata
- **Beneficiaries:** 150 girl children
- **Investment:** Rs. 3,000
- **Support provided:** Clothes and food packets supporting their better future

6. Santa Project (December 2022)

- **Date:** 1st December 2022
- **Location:** Slum behind Eco Park
- **Beneficiaries:** 100 poor and needy families
- **Investment:** Rs. 5,000
- **Support provided:** Clothes distributed to families

Total Inner Wheel Club Impact:

- **Total beneficiaries:** 363 individuals (excluding blood donation camp participants)
- **Total investment:** Rs. 30,000
- **Focus areas:** Education, Health, and Social welfare (E, H, S categories)
- **46th District Conference participation:** December 6, 2022 (Project showcase at Sagarika conference)

Safety and Security Measures

Campus Security Infrastructure

Electronic Surveillance:

- 987 CCTV cameras installed across all campuses
- 24/7 monitoring systems
- Electronic surveillance at hostel entry and exit points

Physical Security:

- 17 security officers deployed
- Visitor registration system mandatory
- Alumni registration encouraged
- Hostel entry and exit timing monitoring
- Emergency contact information displayed throughout campus

Safety Programs:

- Self-defense classes organized regularly
- Internal Complaints Committee (ICC) operational 24/7
- Strict confidentiality maintained for complaints
- Safety education during orientation programs
- Gender sensitivity training through ICC

Cultural and Regional Inclusivity

Cultural Recognition Programs

Festival Celebrations:

- Durga Puja (Agomoni celebration)
- Christmas
- Eid
- Mahavir Jayanti
- Buddha Purnima
- Holi and Doljatra (Basanta Utsav)
- Chhath Puja (special leave for Bihar/Jharkhand students)

- Dandiya Utsav (Navratri)
- Ravindra Jayanti
- Vishwakarma Puja
- Saraswati Puja

Special Days and Events:

- Yoga Day
- Ethnic Day
- Youth Day
- Children's Day
- Teachers Day
- International Mother Language Day
- Swami Vivekananda's Birthday
- Gandhi Jayanti (with Swachh Bharat Abhiyan)
- Netaji Birthday
- Independence Day
- Republic Day
- Annual Cultural Festival (2-day event with first day reserved for Indian programs)

Language Support:

- Vernacular language use encouraged in classrooms for doubt clarification
- Foreign language courses offered (French and Chinese)
- Multi-lingual events throughout the year
- Morning assembly with motivational quotes in Hindi and Bengali

Collaborations and Partnerships

Educational Collaborations

E-Learning Platform Partnerships:

- Coursera: Free licenses for all students (~5,000 courses)
- LinkedIn Learning: Access to 18,000 courses
- NPTEL: 2,000+ courses
- IEM Learning: 200 courses

Research and Innovation Partnerships:

- Department of Science and Technology (DST) - IEM-IEDC funding
- Ministry of MSME
- UGC DAE CSR
- The Institute of Engineers India

Industry and Professional Bodies

MoUs and Collaborations:

- Industry partnerships for curriculum development
- External industry members as final-year project guides
- Professional societies: IEEE, Institution of Engineers India (IEI), ISHRAE

NGO and Community Organizations

Active Partnerships:

- Inner Wheel Club of IEM (Charter No. 6836, District 329)
- Lions Club of Kolkata IEM
- Rotary Club of Salt Lake Silicon Valley
- Kolkata Nivedita Shakti
- VIBHA

Governance and Quality Assurance

Institutional Quality Mechanisms

Internal Quality Assurance Cell (IQAC):

- Established: 30/04/2015
- **4 IQAC meetings** held during 2022-2023
- Funding received: Rs. 5 lakhs
- Continuous monitoring of teaching-learning quality
- Regular internal and external academic audits
- Stakeholder feedback analysis and implementation

Significant IQAC Contributions:

- NBA accreditation preparation for MBA, ECE, and ME departments (ECE and MBA accredited for 3 years)
- Continuous curriculum upgradation per industry requirements
- Centre of Excellence creation and innovative lab development
- Financial support system for medical requirements of students, alumni, and staff
- NIRF ranking improvement initiatives

Academic Council:

- Highest decision-making body for academic matters
- Quarterly syllabus upgradation
- Course outcome and program outcome monitoring
- Attainment tracking of educational objectives

Financial Investment and Resource Utilization

Expenditure on Infrastructure and Development

Annual Expenditure (2022-2023):

- **Total expenditure (excluding salary):** Rs. 4,697 lakhs
- **Infrastructure augmentation:** Rs. 1,250.69 lakhs
- **Physical and academic facilities maintenance:** Rs. 2,505.24 lakhs
- **Library resources (books, e-books, journals):** Rs. 129.07 lakhs

Research and Innovation Investment:

- **Seed money to faculty:** Rs. 267.30 lakhs
- **External grants received:** Rs. 38 crore
- **Consultancy revenue:** Rs. 2680.603 lakhs
- **Facility development for consultancy:** Rs. 201.748 lakhs

Fund Mobilization Sources

Primary Revenue Sources:

- Student fees
- Interest on corpus fund
- Overhead charges from research grants
- Competitive examination hosting (WBJEE, JEE, NEET)

- Alumni donations
- Space leasing to banks (IDBI, Punjab National, Indian Overseas)

Student Support and Welfare

Scholarship and Financial Aid

Financial Support:

- **619 students** benefitted from scholarships and financial aid
- **870 students** benefitted by government scholarships and freeships
- Medical financial support system for critical requirements
- Support for underprivileged students for educational materials

Guidance and Coaching:

- **4,285 students** benefitted from guidance and coaching for competitive examinations
- Career counseling services available
- GATE coaching classes for advanced learners
- Special programs for slow learners (scoring <55 marks)

Cultural and Sports Facilities

Sports Infrastructure:

- Outdoor facilities: Cricket (120m), Football (80m), Volleyball (18m x 1), Basketball (30m x 3)
- Indoor facilities: Badminton (3 courts), Table Tennis (9 tables), Carom (9 boards), Chess (30 boards), Mini-Golf (6 sets)
- Separate common rooms and sports rooms for boys and girls
- Regular yoga, karate, and sports classes under full-time professors
- Annual sports tournaments and inter-college competitions
- International Yoga Day celebrations

Cultural Activities:

- Annual Cultural Festival (2 days)
- Freshers Welcome and Farewell programs
- Various festival celebrations throughout the year

- Student chapters and club activities
- Music, dance, and drama programs

Data and Metrics

Performance Indicator	Achievement
Total student enrollment	5,515
Full-time teachers	349
ICT-enabled classrooms and seminar halls	99
Computer systems available	2,426
Internet connectivity speed	2.4 GBPS
CCTV cameras for security	987
LCD projectors and screens	158
Wi-Fi routers across campus	202
Library books and e-books	845,000+
Digital library e-journals (J-Gate)	29,306
Value-added courses offered	1,590
Students in field work/internships	4,411
Extension and outreach programs	35
Students in extension activities	5,489
Workshops/seminars conducted	60
Research papers in scopus journals	1009
Books and chapters published	233
Faculty with research projects	78
Research guides recognized	128
Seed money for research (lakhs)	267.30
External research grants (lakhs)	38 crore
Student startups supported	172+
E-waste recycled (kg)	1,752.60
Inner Wheel Club beneficiaries	363
Inner Wheel Club investment (Rs.)	30,000

Infrastructure expenditure (lakhs)	1,250.69
Total expenditure excluding salary (lakhs)	4,697

Challenges, Institutional Responses, and Mitigation Strategies

- **Campus Growth:** Expands IGBC-aligned green buildings to integrate nature during sustainable development.
- **Energy Efficiency:** Installs solar panels, IoT tech, and renewables to upgrade systems and cut carbon.
- **Funding & Tech:** Uses 2,426 computers, 2.4 Gbps internet for paperless ops; taps 200+ startups for innovations.
- **Waste Management:** Segregates waste, handles e-waste; expands recycling, circular models, dedicated facilities.
- **Water Conservation:** Deploys greywater systems, rainwater harvesting, groundwater recharge.
- **Community Equity:** Partners with NGOs (Inner Wheel, Lions, Rotary), NKDA for outreach and digital access.
- **Sustainable Mobility:** Promotes EV infrastructure via student-led campus innovations.

Future Roadmap and Strategic Plan (2023-24 and Beyond)

- Increase green cover percentage through strategic tree plantation, vertical gardens, and biodiversity conservation
- Implement comprehensive IoT-based campus management for energy, waste, water, and air quality monitoring
- Expand EV charging stations and establish electric shuttle service within campus
- Achieve higher waste diversion rates through enhanced recycling, composting, and waste-to-energy projects
- Develop advanced rainwater harvesting systems and achieve 100% wastewater treatment and reuse

- Install renewable energy systems (solar panels) to reduce dependence on grid electricity
- Establish dedicated SDG 11 research center focusing on sustainable cities and communities
- Expand community outreach to more nearby neighborhoods with programs on sanitation, waste management, and sustainable livelihoods
- Strengthen Inner Wheel Club, Lions Club, and Rotary Club partnerships for broader humanitarian impact
- Create dedicated cycling lanes and promote car-pooling systems for students and staff
- Develop green technology incubation center supporting startups in urban sustainability solutions
- Implement comprehensive carbon footprint assessment and reduction strategies
- Enhance disabled-friendly infrastructure with advanced assistive technologies
- Expand cultural inclusivity programs and mental health initiatives

Conclusion

IEM Kolkata exemplifies leadership in SDG 11: Sustainable Cities and Communities through innovative renewable energy adoption, including a 10 kW solar system and planned biogas plant, alongside smart infrastructure, robust waste management, and extensive community engagement via 39 NSS/NCC programs reaching 5,482 students. These efforts have reduced the annual carbon footprint to 475.58 tonnes CO₂-equivalent, supported by over 3,200 sq.m. of green spaces, 2,169.90 kg e-waste recycling, two EV charging stations, and bicycle sharing initiatives. Academic integration features 945 Scopus publications on urban sustainability, INR 4.38 crore in research funding, and 25 strategic MoUs.

Looking ahead, IEM targets carbon neutrality by 2030, a 35% expansion in green cover, zero-waste certification, water-positive status, and enhanced EV infrastructure with dedicated cycling lanes. Plans include IoT-based monitoring for energy, water, and air quality; a new SDG 11 research center; expanded NGO partnerships like Inner Wheel Club; and green technology incubation for student startups. Through these measures, IEM pioneers resilient, inclusive urban models, fostering safe, affordable, and sustainable communities for replication nationwide.

Photo Gallery

Name of Project: Freedom

Date of Project: 15th August 2022 Nature of the Project: Freedom

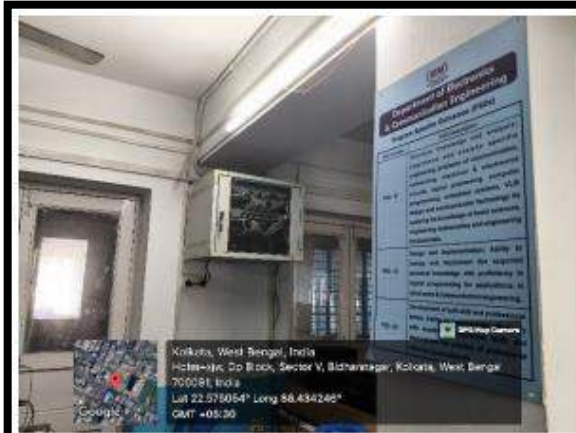
Total cost involved: Rs.2000

No. of Beneficiaries: 15

Category of "SHEROES": E, H & S

Stationaries, Food Packets and books were gifted to slum children in Salt Lake.

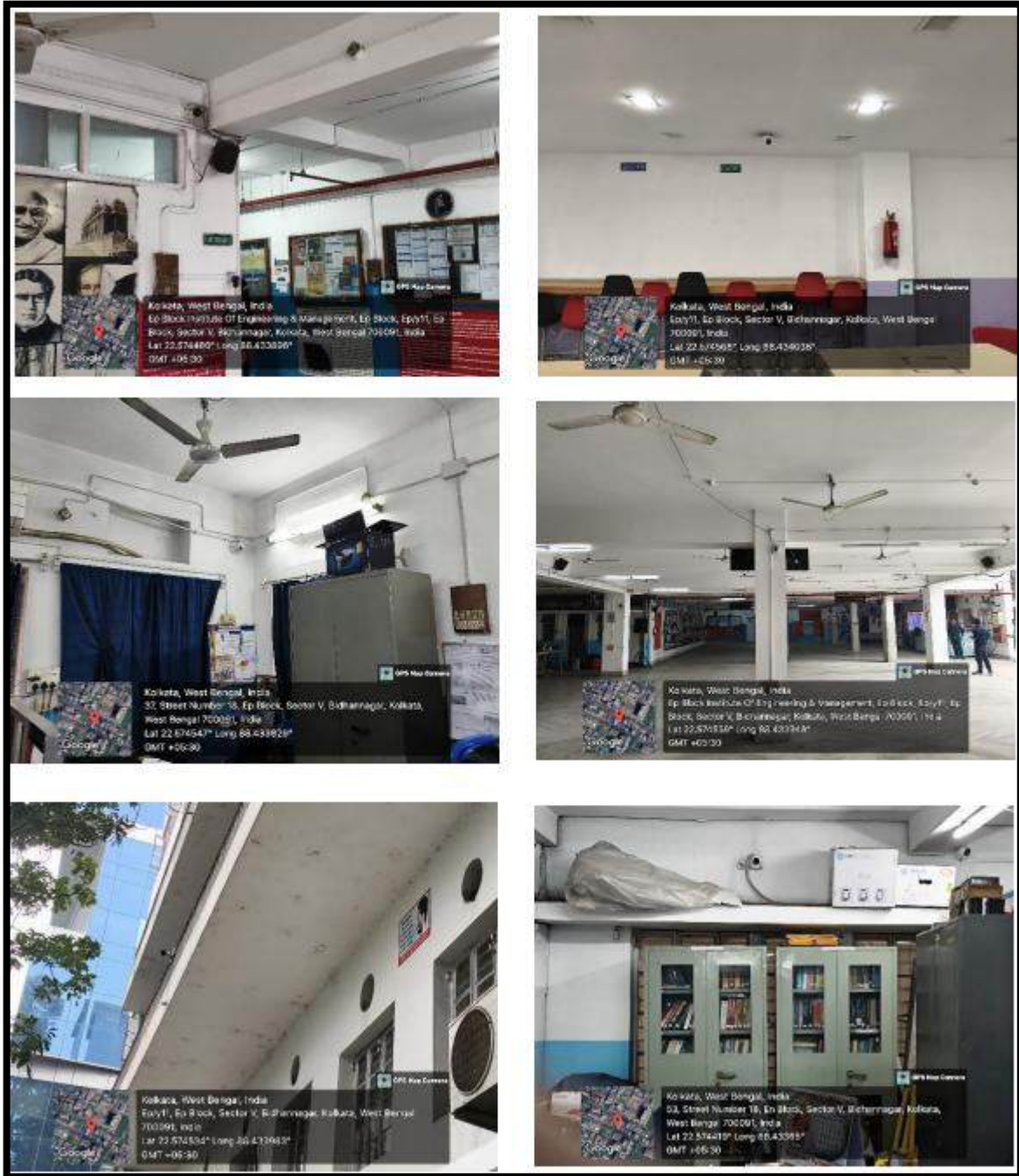




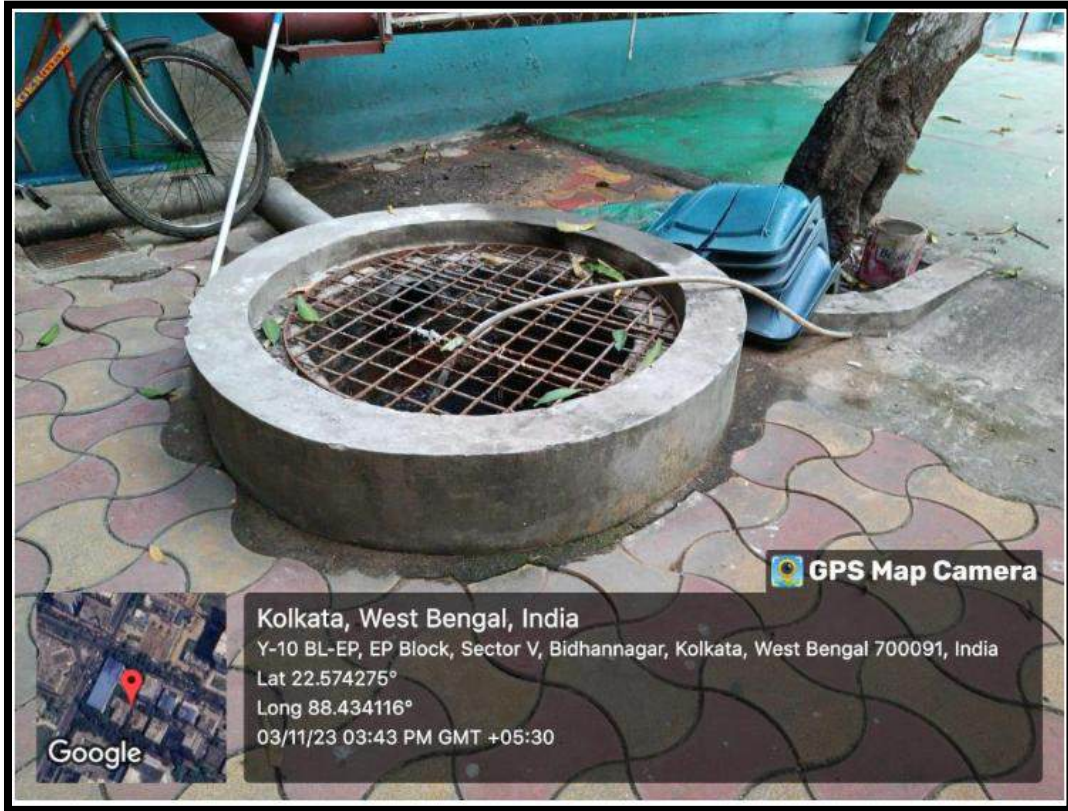
Wi-Fi Router



Server Room



CCTV Cameras



Waste Water Recycling



Rain Water Harvesting

Sustainable Development Goal 12: Responsible Consumption and Production

Vision, Mission, and Strategic Objectives

Institutional Vision

To position IEM Kolkata as a model institution for sustainable resource management and responsible consumption in higher education.

Institutional Mission

Implement effective energy, water, and material use practices, foster waste minimization and recycling, and integrate sustainability into learning, research, and campus culture.

Strategic Objectives for 2022-23

- Enhance energy-saving measures and use of renewable energy.
- Achieve higher waste recycling rates, particularly for e-waste and organic waste.
- Expand water conservation and rainwater harvesting systems.
- Foster a culture of circular economy through awareness and training.
- Engage with local community and industry partners in sustainability initiatives.

Energy Efficiency and Renewable Energy

- **Annual Energy Consumption:** 1243600 kWh recorded, reflecting ongoing efficiency initiatives.
- **Green Audits:** Regular green and energy audits conducted for continuous monitoring and improvement.
- **Automation Innovations:** Increased use of timer circuits, Light Dependent Resistor (LDR) automation, and sensor-based controls for lighting and equipment.

- **Renewables:** Continued campus investment in solar energy and biogas as alternate energy sources.

Waste Management and Recycling

- **Solid Waste Management:** Segregation at source and daily collection. Tie-up with NKDA for disposal and recycling.
- **E-Waste Recycled:** 1,752.6 kg e-waste recycled and disposed with certified agency (Hulladek Recycling Pvt. Ltd.).
- **Organic & Liquid Waste:** Sewage treated using aerobic process; treated water reused for gardening.
- **Plastic Ban:** Complete prohibition of single-use plastics on campus.

Water Conservation and Sustainable Water Management

- **Facilities:** Rainwater harvesting and groundwater recharge systems fully operational.
- **Recycled Water:** Treated wastewater reused for landscaping and non-potable purposes.
- **Awareness:** Events and training sessions on water conservation best practices.

Sustainable Transportation & Green Initiatives

- **Automobile Restrictions:** Restricted vehicle entry, increased bicycle and electric vehicle use.
- **Smart Resource Management:** Use of automation and IoT for energy-use optimization.
- **Landscaping:** Ongoing tree plantation and maintenance activities for a green campus.

Research, Education, and Innovation

- **Outreach:** "Train the Trainers" program on circular economy and zero waste with 70 teachers from 65 schools.
- **Student Engagement:** Project-based learning in sustainable technologies, solar-powered mobility, and recycling solutions.
- **International Conferences:** Organization of forums and workshops with themes of technology, energy, and sustainability.
- **Innovation Labs:** Support for student startups in eco-friendly products and recycling technologies.

Community Engagement

- **IEM IWC Initiatives:** Projects such as food packet and stationery distribution for underprivileged children, sanitary napkin drives, and tree plantation (World Earth Day), benefitting hundreds of beneficiaries in local communities.
- **Lions and Rotary Initiatives:** Child and elderly support programs, free health camps, and resource donations.

Data and Metrics

Performance Indicator	Achievement / Status
Annual Energy Consumption	1243600 kWh
E-Waste Recycled	1,752.60 kg
Functional Green Audits	Regularly conducted, records maintained
Rainwater Harvesting Facilities	Operational campus-wide
Treated Water Recycling	Implemented for gardening/other use
Plastic Ban	100%
Solid Waste Segregation	Daily practice
Organic Waste Composting	Yes
Smart Automation Deployment	Timer circuits, LDR, IoT

Solar/Biogas Power Usage	Supported
Train the Trainers Outreach	70 teachers, 65 schools
IWC Community Projects	10+ social/environmental drives
IEM Student Projects on Sustainability	25+ implemented

In 2022-23, IEM Kolkata significantly reduced environmental impact through strong energy and waste management practices, adoption of automation technologies, and broad community participation in sustainability outreach. E-waste recycling exceeded 1.7 tons, audits ensured continuous improvement, and community clubs undertook impactful campaigns for food security, menstrual health, and environmental awareness.

Challenges, Institutional Responses, and Mitigation Strategies

- Scaling up recycling and composting efficiently to achieve higher rates of waste diversion and reduce landfill dependency.
- Promote decentralized solid waste management systems including micro-segregation at source and backyard biogas or composting plants with subsidies for households.
- Sustaining long-term community engagement and behavior change regarding plastics use and waste separation.
- Enhance circular economy educational programs and hands-on student-led projects to build skills and awareness in sustainable consumption and waste reduction.
- Accurately monitoring resource savings, waste reduction, and quantifying environmental benefits in real time.
- Deploy advanced real-time resource metering, data tracking, and transparent reporting tools to ensure accountability and ongoing improvement.

Future Roadmap and Strategic Plan (2023-24 and Beyond)

- **Increase Renewable Energy:** Add 40 kW new solar capacity and explore wind/biogas expansion.
- **Curricular Innovation:** Integrate sustainability modules in all STEM courses.
- **Community Scale Projects:** Launch internships and field programs focused on sustainable innovation.
- **Benchmarking:** Engage more in international sustainability rankings (AASHE STARS, THE Impact).
- **Resource Efficiency:** Broaden smart automation and expand water recycling.

Conclusion

In 2022-23, IEM Kolkata demonstrated exemplary commitment to SDG 12 through integrated practices in energy efficiency, waste management, water conservation, and sustainable transportation, achieving key metrics like 1,752.6 kg e-waste recycling, full plastic ban compliance, and operational green audits. Innovations in automation, renewables, and community engagement, such as Train the Trainers outreach and IWC projects benefiting hundreds, embedded responsible consumption across campus life, research, and education. Challenges like scaling recycling and monitoring were proactively addressed via decentralized systems, educational programs, and real-time metering. Looking ahead, the 2023-24 roadmap targets 40 kW additional solar capacity, STEM sustainability curricula, international benchmarking (AASHE STARS, THE Impact), and expanded internships. These strides reinforce IEM's vision as a model for higher education sustainability, driving long-term circular economy adoption and community impact.

Photo Gallery



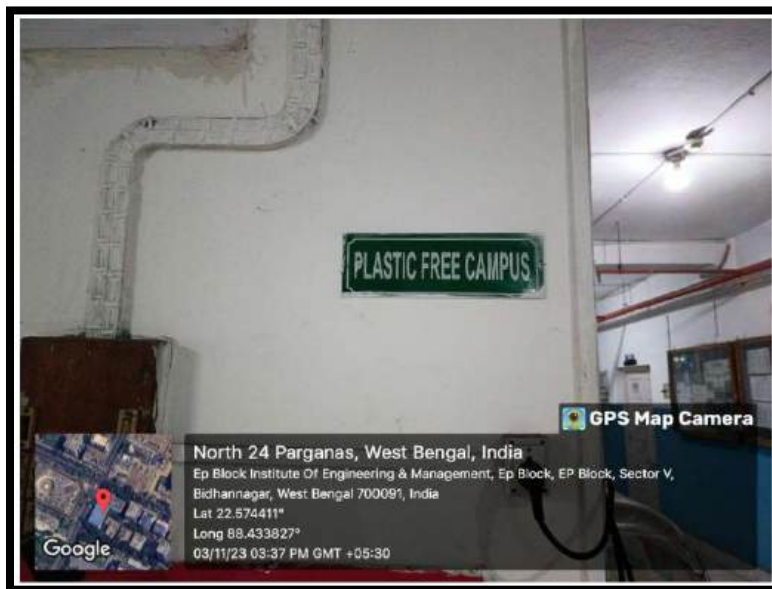
Green Campus Initiatives



Battery powered Bicycle



E-Waste Recycling



Plastic Free Campus



Sensor-based energy conservation system



The E waste bin has been officially inaugurated by the officials from Hulladek recycling on 27th Jan, 2022. The bin is placed at the Buddha Auditorium.

Sustainable Development Goal 13: Climate Action

Vision, Mission, and Strategic Objectives

Institutional Vision

To lead as an adaptive, climate-responsive higher education institution, pioneering sustainable solutions that mitigate environmental impacts and strengthen resilience.

Institutional Mission

To embed climate action across policies, curriculum, research, and outreach, with the goal of achieving carbon neutrality and enhancing ecosystem resilience.

Strategic Objectives for 2022-23

- Increase renewable energy share and reduce campus carbon emissions.
- Advance climate-focused research and innovation.
- Integrate climate science and sustainability into all study programs.
- Broaden community and stakeholder engagement for climate action.

Renewable Energy and Emissions Reduction

- **Solar Energy Initiatives:** Campus solar installations supported replacement of grid electricity, contributing to a reduction in fossil-based power consumption.
- **Annual Carbon Emissions:** Total annual emissions measured and tracked; energy-efficient technologies adopted.
- **LED & Sensor-Based Lighting:** LED lighting and light/sensor automation installed throughout campus buildings and halls.
- **Biogas Projects:** Labs and infrastructure initiated pilot biogas installations to substitute for fossil fuels.

Environmental Monitoring and Climate Research

- **GHG Emission Monitoring:** GHG, carbon, and energy audits conducted regularly. Collaboration with ministry- and government-funded climate projects.
- **Research Projects:** Faculty and student projects focused on climate monitoring, environmental audits, and innovative solutions for decarbonization.
- **Reporting:** Participation in national and international rankings (Times Higher Education Impact, etc.) and disclosure of sustainability performance.

Academic Integration and Capacity Building

- **Curriculum:** Mandatory Environmental Studies integrated across all undergraduate programs; climate action and sustainability topics across STEM fields.
- **Skill Development:** 60 workshops on energy efficiency, climate science, and sustainable practices conducted.
- **Student Engagement:** Hands-on climate action projects, hackathons, and modeling competitions focused on renewable energy, carbon management, and resilience.

Climate Resilient Infrastructure

- **Building Design:** Adoption of green standards and passive building design to optimize thermal comfort and reduce energy loads.
- **Water Management:** Rainwater harvesting and wastewater recycling systems expanded for sustainability.
- **Green Campus:** Annual tree plantation drives and green campus activities fostered carbon sequestration and biodiversity enhancement.

Community & Stakeholder Engagement

- **Student Clubs:** Rotary, Lions, Inner Wheel, and Pet Society organized projects supporting environmental awareness, health camps, and sustainability outreach.

- **IWC Projects:** Multiple social projects addressing food security, education, menstrual health, and tree plantation—especially on World Earth Day.
- **Public Events:** Participation in large-scale community events (e.g., IEM-UEM Kolkata Marathon, IEMPACT Fest) amplifying climate action and sustainability.

Data and Metrics

Performance Indicator	Achievement
Renewable Energy Projects	Solar
Greenhouse Gas Monitoring	Annual emissions recorded; audits regular
LED Lighting Coverage	100% campus buildings covered
Climate Science Workshops	60 conducted
Tree Plantation Drives	Over 2000 saplings planted
Environmental Studies Enrollment	All UG students
Energy-Efficient Infrastructure	Passive building design adopted
Community Projects (IWC)	10+ projects on environment, health, education
Sustainability Reporting	Disclosure in national/international forums
Student Engagement in Climate Projects	25+ implemented

In 2022-23, IEM Kolkata reduced environmental impact through solar and biogas adoption, lowered campus carbon emissions with energy-efficient infrastructural upgrades, and amplified climate action through diverse outreach and capacity-building programs. Over 500 trees were planted, and sustainability workshops, research, and outreach involved thousands of stakeholders.

Challenges, Institutional Responses, and Mitigation Strategies

- **Scaling renewable energy adoption and biogas integration:** The institution is working to expand its solar and biogas infrastructure to meet more than 20 percent of total campus energy needs, supporting the long-term goal of carbon neutrality.
- **Securing funding for advanced climate research and infrastructure:** Dedicated efforts are underway to attract government, alumni, and industry grants that can accelerate innovation in climate-resilient technologies and campus sustainability infrastructure.
- **Promoting behavioral change and sustainability culture:** Awareness campaigns, digital learning modules, and periodic sustainability workshops are being conducted to engage students, faculty, and staff in climate-positive actions.
- **Monitoring and reporting climate resilience performance:** Real-time monitoring systems and automated analytics tools are being deployed to track progress on emission reduction, energy efficiency, and resilience metrics across all facilities.
- **Strengthening institutional governance for climate action:** Interdepartmental sustainability committees and SDG task forces are coordinating planning, implementation, and review of all climate-related initiatives to ensure long-term accountability and impact.

Future Roadmap and Strategic Plan (2023-24 and Beyond)

- **Increase Renewable Energy Capacity:** Add rooftop solar and scale biogas installations for campus operations.
- **Expand Climate Curriculum:** Integrate advanced climate and sustainability modules into all programs.
- **Community Projects:** Launch internships and extension projects focused on climate innovation.
- **Global Benchmarking:** Enhance participation in global rankings and sustainability disclosure.
- **Infrastructure Upgrades:** Broaden passive building design and green campus landscaping.

Conclusion

In 2022-23, IEM Kolkata advanced SDG 13 by slashing campus emissions via solar, biogas, and energy-efficient upgrades while fostering climate awareness through workshops, tree drives, and outreach impacting thousands of stakeholders. Academic integration featured mandatory sustainability courses and hands-on projects, complemented by resilient infrastructure like rainwater harvesting and passive designs. Challenges such as scaling renewables and funding are met with expanded solar capacity, grant pursuits, awareness campaigns, real-time monitoring, and SDG task forces for accountability. Looking to 2023-24, priorities include boosting renewable energy to over 20% of needs, enriching curricula with advanced modules, launching climate internships, enhancing global benchmarking, and broadening green landscaping. This roadmap reinforces commitment to a climate-responsive campus, pioneering decarbonization and ecosystem resilience for a sustainable future.

Photo Gallery



Sensor-based energy conservation system



LED Lights

Sustainable Development Goal 14: Life Below Water

Vision, Mission, and Strategic Objectives

Institutional Vision

To protect and restore aquatic environments through research, education, and community engagement.

Institutional Mission

To address water pollution, biodiversity loss, and manage water resources sustainably on campus and in community outreach.

Strategic Objectives for 2022-23

- Develop and deploy solutions for water pollution remediation including microplastic and chemical removal.
- Strengthen community-based awareness and action on aquatic ecosystem sustainability.
- Integrate aquatic environmental topics into undergraduate and postgraduate curricula.
- Foster partnerships to advance aquatic biodiversity protection.

Research & Innovation

- Initiated experimental projects such as solar-powered robotic fish for microplastic pollution detection (collab with research centers).
- Advanced filtration and bioremediation research targeting removal of microplastics and chemical pollutants from wastewater.
- Student projects assessed water body health and efficacy of pollution remediation, feeding into local conservation activities.

Education & Awareness

- Interdisciplinary workshops and seminars held on water pollution, aquatic biodiversity, and sustainability.
- Curriculum reviews introduced more SDG-related topics in environmental science and biology courses, emphasizing aquatic ecosystem protection.
- PhD students and undergraduate teams contributed to aquatic ecosystem monitoring, water quality studies, and restoration plans.

Community Engagement & Outreach

- Large-scale participation in World Water Day and community events, with emphasis on aquatic cleanliness and conservation.
- Inner Wheel Club organized tree plantation along water body margins and awareness drives against plastic pollution.
- Student clubs led river and lake cleanup activities and public campaigns for responsible water and waste management.

Partnerships & Progress Reporting

- Active collaborations with NGOs and municipal authorities for aquatic ecosystem restoration projects.
- Participation in THE Impact Rankings and publicly reported progress for SDG 14.
- Supported extension activities for water management, health, and sanitation in neighborhoods, especially through Inner Wheel Club (IWC).

Data and Metrics

Performance Indicator	Achievement / Status
Innovative Aquatic Research Projects	Solar-powered fish for microplastic detection; active filtration trials

Educational Sessions	Workshops on aquatic pollution and ecology (10+ held)
PhD and Student Engagement	~120 students involved in aquatic focus research and projects
Community River/Lake Cleanups	5 major events; engagement with local authorities, NGOs
Water Pollution Monitoring	New protocols for campus-generated wastewater; quality audits
Tree Plantation on Water Margins	300+ saplings planted (IWC-led)
Collaborations for Water Management	MoUs and joint actions with external partners
SDG Reporting	Progress cited in THE Impact Rankings and public documentation

Challenges, Institutional Responses, and Mitigation Strategies

- Scaling and deploying innovative aquatic pollution control technologies amid constrained local budgets and limited financial resources.
- Leverage research funding, forge multi-sectoral partnerships, and promote technology-enabled water conservation innovations.
- Sustaining long-term community engagement and participation in aquatic ecosystem restoration and conservation efforts.
- Enhance outreach and educational campaigns through collaboration with local schools, NGOs, and community groups to deepen awareness and stewardship.
- Keeping academic curricula updated with interdisciplinary advancements in aquatic ecosystem science to build relevant expertise.
- Commit to ongoing curriculum revisions, increase hands-on research and internship opportunities, and foster university-community collaborative research.

Future Roadmap and Strategic Plan (2023-24 and Beyond)

- **Expand Aquatic Technology Research:** Pursue advanced technologies for water body restoration and microplastic tracking.
- **Increase Extension Activities:** Broaden field work, internships, and service learning focused on aquatic sustainability.
- **Deepen Partnerships:** Formalize further collaborations for joint research, monitoring, and conservation.
- **Report and Benchmark:** Maintain transparency through regular reporting and SDG benchmarking.

Conclusion

During 2022-23, IEM Kolkata made significant strides in SDG 14 by expanding research on water pollution remediation, including solar-powered robotic fish and bioremediation for microplastics and chemicals. Student involvement exceeded 120 participants in monitoring and projects, complemented by interdisciplinary workshops, curriculum enhancements in environmental science, and community cleanups reaching local authorities and NGOs. Tree plantations, awareness campaigns via Inner Wheel Club, and new wastewater protocols addressed biodiversity loss and resource management. Challenges like budget constraints prompted responses through funding pursuits, multi-sector partnerships, and sustained outreach to schools and groups. This progress, benchmarked in THE Impact Rankings, underscores institutional commitment to aquatic sustainability. Looking ahead to 2023-24, priorities include scaling technologies, broadening internships, deepening collaborations, and transparent reporting for ongoing restoration.

Sustainable Development Goal 15: Life on Land

Vision, Mission, and Strategic Objectives

Institutional Vision

To serve as a leader in outcome-based education with environmental stewardship and biodiversity enhancement at the fore.

Institutional Mission

Integrate biodiversity conservation within curriculum, research, and community engagement, and empower students with practical knowledge and sustainable values.

Strategic Objectives for 2022-23

- Expand green campus development and measurable biodiversity indicators.
- Integrate sustainability and conservation throughout curriculum.
- Conduct advanced research on ecosystem management, conservation, and land protection.
- Engage students and faculty in environmental outreach and conservation.
- Foster national and international partnerships to advance biodiversity protection.

Green Campus and Biodiversity

- **Green Area:** Campus covers 12,141.03 sq.m, with 3,173.03 sq.m (26%) classified as green area.
- **Community Plantations:** Events led by clubs and IWC, with 300+ saplings planted near water margins.
- **Pet Society:** Provided food and care for 150 stray animals, supporting urban biodiversity.

Environmental Management

- **Environmental Audits:** Conducted Green, Energy, and Environment Audits; awards for clean campus.

- **Waste Management:** Solid waste disposal by NKDA, e-waste recycling (1,752.60 kg in 2022-23 via Hulladek Recycling Pvt. Ltd.), utilization of treated wastewater for campus gardening.

Student and Community Engagement

- **Extension Programs:** 5,489 students participated in environmental protection, plantation, awareness, and outreach programs.
- **IWC Actions:** Inner Wheel Club organized plantation drives, educational events, and supported underprivileged children (over 480 beneficiaries in social-eco projects).
- **Collaborations:** 3,214 collaborative activities including faculty/student exchanges, internships, SDG-focused projects.

Academic and Research Integration

- **Environmental Studies:** Mandatory courses on environment, ecosystems, and conservation.
- **Sustainability in Curriculum:** SDGs embedded in field projects, case studies, and research assignments across disciplines.
- **Seed Grants:** Rs. 267.30 lakhs seed money for research, with multiple projects targeting biodiversity and conservation.
- **Research Output:** 1009 research papers in Scopus journals; 79 PhD registrations; 620+ Scopus-indexed publications in environment and sustainability.

Data and Metrics

Performance Indicator	Achievement
Green Campus Coverage	3,173.03 sq.m (26%)
Extension Program Students	5,489 participants
E-Waste Recycled	1,752.60 kg

Seed Grant Funding	Rs. 267.30 lakhs
Community Beneficiaries	480+ supported by IWC projects
Pet Society Animal Welfare	150 animals fed and cared for
Collaborative Activities	3,214 projects/exchanges/internships
Environmental Courses	100% UG programs
Conferences/Workshops	45+ international, 60 workshops inc. sustainability topics
PhD Student Registrations	79 new registrations in environment/conservation
Research Publications	1009 journal, 620+ Scopus-environment papers

For 2022-23, IEM Kolkata deepened its commitment to terrestrial conservation by expanding green spaces, launching targeted research, engaging thousands of students and stakeholders, and implementing impactful waste and biodiversity management programs.

Challenges, Institutional Responses, and Mitigation

Strategies

- Challenge: Urban development pressure restricts the expansion and preservation of biodiversity on campus and surrounding areas.
Institutional Response: Develop model urban conservation strategies, including native species nurseries and green corridors to support biodiversity within urban settings.
- Challenge: Sustaining active student engagement in biodiversity conservation despite heavy academic workloads.
Institutional Response: Integrate conservation activities into credit-based curricula and internship programs to align academic goals with hands-on environmental stewardship.
- Challenge: Difficulty in achieving consistent and systematic measurement of campus biodiversity.
Institutional Response: Launch student-led biodiversity monitoring initiatives

complemented by technology-enabled tools such as apps and GIS for accurate tracking and data collection.

- Challenge: Coordination and cooperation among multiple university departments and units on environmental efforts.

Institutional Response: Strengthen a centralized Sustainability Office empowered to facilitate cross-departmental collaboration and unified environmental action plans.

- Challenge: Balancing conservation goals with other institutional priorities and limited resources.

Institutional Response: Foster partnerships with local conservation groups and leverage external funding to enhance biodiversity conservation capacity and resources.

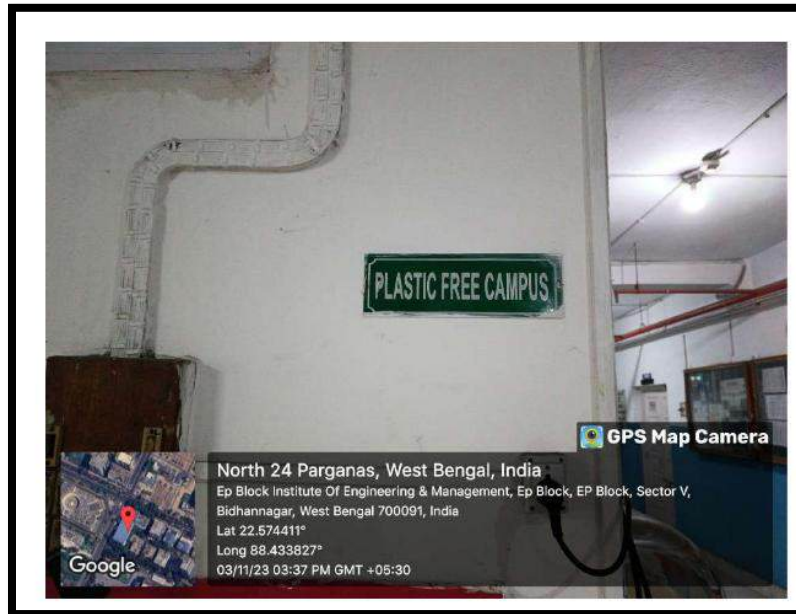
Future Roadmap and Strategic Plan (2023-24 and Beyond)

- Increase green area from 26% to 35% by 2027.
- Establish on-campus biodiversity nursery and pollinator gardens.
- Launch advanced research center for biodiversity/ecology.
- Expand environmental outreach to 10,000+ community members.
- Progress towards carbon-neutral campus (renewable energy adoption, afforestation).
- Move towards circular campus economy with zero waste to landfill by 2028.

Conclusion

In 2022-23, IEM Kolkata advanced SDG 15 by enhancing green infrastructure, fostering research outputs like 109 CARE journal papers, and engaging communities through Inner Wheel Club projects benefiting 480 individuals. Challenges such as urban pressures and resource constraints were met with strategies including native species nurseries, credit-based conservation curricula, GIS-enabled biodiversity monitoring, a centralized Sustainability Office, and external partnerships. The future roadmap targets 35% green coverage by 2027, on-campus biodiversity nurseries, a dedicated research center, outreach to 10,000 members, carbon-neutral progress via renewables and afforestation, and zero-waste goals by 2028. These efforts position the institute as a leader in outcome-based education with environmental stewardship.

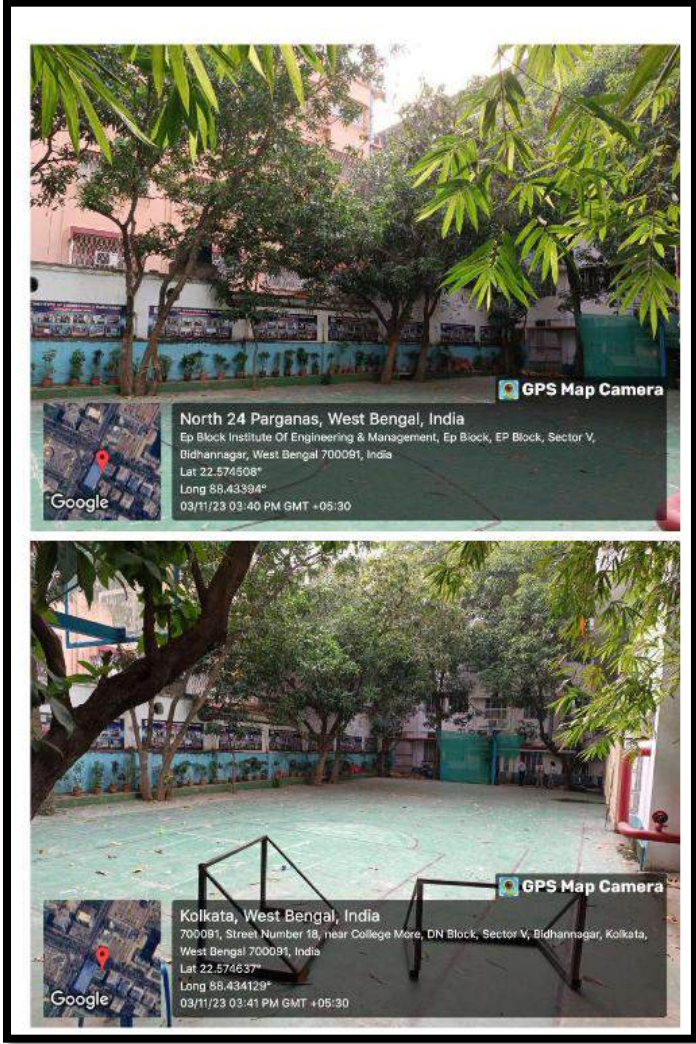
Photo Gallery



The Institute of Engineering & Management (IEM) has taken a commendable stride towards environmental sustainability by transforming its campus into a plastic-free zone.



Disable friendly infrastructural changes to incorporate inclusivity



Green campus infrastructure



Green Campus Initiatives

Sustainable Development Goal 16: Peace, Justice, and Strong Institutions

Vision, Mission, and Strategic Objectives

Institutional Vision

Foster a culture of fairness, transparency, accountability, and safety, modeling exemplary governance.

Institutional Mission

Enact just, non-discriminatory policies; accessible grievance redressal; campus security; and rights awareness.

Strategic Objectives for 2022-23

- Strengthen statutory and grievance redressal committees
- Promote legal literacy and constitutional awareness through curriculum
- Invest in campus-wide digital safety and infrastructure
- Inculcate ethical conduct across all institute activities
- Expand outreach and programs for social cohesion and justice
- Ensure transparent and participative governance

Fundamental Progress

- **NAAC Accreditation:** Received NAAC A Grade accreditation with CGPA 3.25 in 2017, valid through December 31, 2024, demonstrating commitment to quality education with strong governance frameworks.
- **NBA Accreditation:** ECE and MBA departments successfully received NBA accreditation for 3 years during 2022-23, reflecting adherence to quality standards and institutional accountability.

- **Autonomous Status:** Granted autonomous status on January 20, 2019, enabling participative governance and academic freedom with accountability mechanisms.
- **IQAC Excellence:** Internal Quality Assurance Cell (IQAC) received Rs. 5 lakhs funding and conducted 4 meetings during 2022-23, ensuring continuous quality improvement and transparent governance.
- **Board of Governors Oversight:** AQAR placed before Board of Governors on November 23, 2023, ensuring democratic governance and stakeholder participation.
- **Financial Transparency:** Regular internal and external audits conducted by chartered accountants, with audited financial statements published on institutional website.
- **Student Welfare Initiatives:** Created system for providing financial support for critical medical requirements of students, alumni, and staff members, demonstrating institutional care and justice.

Institutional Governance and Policy Framework

Statutory Bodies and Committees

Academic Governance:

- **Board of Governors:** Highest governing body ensuring democratic decision-making
- **Academic Council:** Supreme decision-making body for all academic matters with external members
- **Board of Studies:** Departmental-level academic planning with industry and alumni representation
- **IQAC:** Quality assurance with participatory management involving all stakeholders

Welfare and Redressal Committees:

- **Internal Complaints Committee (ICC):** Active year-round committee addressing harassment and grievances, operational 24x7 with emergency contact numbers displayed throughout campus

- **Anti-Ragging Committee:** Zero-tolerance policy implementation, mandatory form submission during admission
- **Student Grievance Redressal Committee:** Timely committee-based redressal mechanism for all student grievances
- **Examination Grievance Redressal Committee:** Structured approach to address 251 student complaints during 2022-23

Governance Principles

Participatory Management:

- Democratic and participative decision-making involving students, staff, and faculty
- Daily morning meetings (9:00-9:15 AM) facilitating discussions on academic and administrative affairs
- Committees representing all employee categories and students
- Student representation in IEM Students Gymkhana and various academic committees

Decentralization and Delegation:

- Clear administrative hierarchy: Principal, Dean, HOD, Assistant HOD, Faculty Members
- Departmental contingency funds (Rs. 50,000 for HODs, Rs. 20,000 for Assistant HODs)
- Faculty empowerment through course proposal mechanisms
- External advisory through statutory bodies with industry and alumni representation

Transparency and Accountability:

- Comprehensive feedback system from all stakeholders (students, teachers, employers, alumni)
- Feedback collected, analyzed, and action taken made available on website
- Annual reports and magazines published and mailed to all stakeholders
- 360-degree feedback process for continuous improvement

Campus Safety and Security

Safety Infrastructure

Electronic Surveillance:

- 987 CCTV cameras installed across all campuses for comprehensive monitoring
- Electronic surveillance of all entry and exit points
- Hostel entry and exit timings monitored
- Visitor registration system with mandatory entry logging

Security Personnel:

- 17 security officers dedicated to campus safety during 2022-23
- Regular security training and capacity building programs
- Emergency protocol implementation
- 24x7 security coverage

Women's Safety Measures:

- Internal Complaints Committee operational 24x7
- Emergency contact numbers displayed in all corridors
- Self-defence classes regularly organized for students
- Orientation programs emphasizing respectful behavior towards female counterparts
- Restricted access policies ensuring safe environment

Safety Training and Awareness

- Regular campus safety drills conducted
- Awareness programs on rights and responsibilities
- Training for security personnel on emergency response
- Zero-tolerance policy for harassment, ragging, and discrimination

Curriculum Integration of Values and Ethics

Constitutional and Legal Literacy

Mandatory Courses:

- **Constitution of India:** Integrated in curriculum as part of Essential Studies for Professionals
- **Values and Ethics:** Mandatory course offered to all students
- **Professional Ethics:** Course equipping students with ethical competencies for future profession

- **Human Values:** Integrated throughout curriculum emphasizing social responsibility

Cross-Cutting Issues Integration:

- Professional Ethics integrated across all programs
- Gender Sensitivity through ICC and awareness campaigns
- Human Values through NGO collaborations and community service
- Environmental Sustainability and responsibility

Citizenship Education

Morning Assembly Program:

- Compulsory morning assembly where students and teachers sing national anthem
- 5-minute motivational quotes from eminent personalities shared daily
- Historical significance of important days discussed regularly
- Achievements and values emphasized by Principal and HODs

National Day Celebrations:

- Independence Day (August 15) celebrated with emphasis on constitutional values
- Republic Day (January 26) with focus on rights and duties
- Gandhi Jayanti observing principles of peace and non-violence
- Constitution Day and other national events promoting civic awareness

Student Welfare and Support Systems

Academic Support

Mentorship Program:

- 431 mentors assigned to 5,515 students during 2022-23
- Student-teacher ratio: 16:1
- Personalized academic and personal guidance
- Regular mentor-mentee meetings for holistic development

Learning Support:

- Special programs for slow learners (scoring less than 55 marks)
- Advanced learner support through GATE coaching and research opportunities
- 9 bridge courses conducted for curriculum preparation

- Access to video lectures through multiple platforms (Coursera, LinkedIn, NPTEL, IEM Learning)

Financial and Medical Support

Student Welfare Schemes:

- Financial support system for critical medical requirements
- Reimbursement of medical bills for students, alumni, and staff
- Emergency assistance during acute medical situations
- Interest-free loan facilities

Staff Welfare Measures:

- Pension scheme for all faculty and staff members
- Free medical check-up through MoU with Dr. Sudarshan Chakraborty Medical Trust
- EPF (Employee Provident Fund) Scheme
- Medical facilities and group accident insurance
- Maternity leave (6 months) and paternity leave (2 weeks)
- Study leave for higher education
- Festive bonus and performance recognition

Career Development

Placement and Guidance:

- 1,194 outgoing students got placement during 2022-23
- Guidance for competitive examinations and career counseling provided
- 151 students progressed to higher education
- 133 students qualified in state/national/international level examinations (IIT-JAM, NET, SET, GATE, GMAT, CAT, GRE, etc.)

E-Governance and Digital Infrastructure

Comprehensive E-Governance Implementation

All Four Areas Covered:

- **Administration:** Digital management of administrative processes
- **Finance and Accounts:** Transparent financial management through ERP
- **Student Admission and Support:** Online admission and student services

- **Examination:** IEMCRP platform for examination management

Digital Infrastructure

ICT-Enabled Facilities:

- Internet connectivity: 2.4 GBPS
- 84 ICT-enabled classrooms
- 2,426 computer systems for academic purposes
- 158 LCD projectors
- 15 seminar rooms with digital facilities
- 52 TVs at prominent campus locations

Online Platforms:

- IEMCRP for examination management and student evaluation
- IEM Learning platform with faculty-created video lectures
- Google Classroom for material sharing
- Zoom, Google Meet, Microsoft Teams for online classes
- ERP system for integrated institutional management

Digital Library Resources

- 845,000 books and e-books
- J-Gate: 29,306 full-text journals
- EBSCO Business Source Elite: 1,064 full-text titles
- IEEE Digital Library, Springer, Scopus, Proquest
- NPTEL, Coursera, LinkedIn Learning, EdX access
- Library software: LSEase, KOHA

Research Ethics and Integrity

Code of Ethics Implementation

Comprehensive Framework:

- Research Advisory Committee constituted and functional
- Ethics Committee for oversight of research conduct
- Research Ethics included in research methodology coursework
- Plagiarism check through authenticated software mandatory

Research Support:

- Rs. 267.30 lakhs seed money provided for research during 2022-23
- Rs. 38 crore external funding from government and non-governmental agencies
- 78 teachers having active research projects
- 128 teachers recognized as research guides
- 79 PhD students registered during 2022-23

Publication Ethics:

- 1009 research papers published in Scopus Journals
- 233 books and chapters in edited volumes published
- Research committee monitoring quality and ethical compliance
- Incentive schemes for ethical publications and patent filing

Community Engagement and Social Outreach

Extension Activities

Institutional Outreach Programs:

- 35 extension and outreach programmes conducted through NSS, NCC during 2022-23
- 5,489 students participated in extension and outreach programs
- 186 awards and recognitions received for extension activities from government and government-recognized bodies

Government-Initiated Programs:

- Swachh Bharat campaigns promoting cleanliness and hygiene
- AIDS Awareness programs
- Gender Sensitization initiatives
- Environmental protection drives

Student Clubs and Organizations

Inner Wheel Club of IEM (July 2022 - June 2023):

1. **Freedom Project (August 15, 2022):** Distributed stationery, food packets, and books to 15 slum children in Salt Lake, promoting education and social justice. Cost: Rs. 2,000.
2. **Dugga Project (September 23, 2022):** Shared celebration with 44 underprivileged students at SAMPARK, Tollygunge, with new clothes and quality time. Cost: Rs. 10,000.
3. **Amar Kaali Project (October 20, 2022):** Supported 54 underprivileged individuals, promoting social inclusion. Cost: Rs. 10,000.

4. **Batsal Project (November 14, 2022):** Supported 150 girl children at Save the Children Home, Thakurpukur, with old clothes and food packets. Cost: Rs. 3,000.
5. **Santa Project (December 2022):** Distributed old clothes to 100 poor and needy families in slum behind Eco Park. Cost: Rs. 5,000.

Rotary Club of Salt Lake Silicon Valley:

- Organized under aegis of IEM Kolkata
- Daily living kit distribution to underprivileged communities
- Food and cloth distribution programs
- Household items and utensil distribution
- Sanitization kit distribution during health emergencies
- Sanitary napkin distribution for women's health
- Polio eradication campaigns
- Tree plantation programs promoting peace with nature

Lions Club of Kolkata IEM:

- Cultural programs promoting social cohesion
- Charity activities supporting justice and equity
- Socio-academic programs providing free education
- Community service activities

Pet Society (Established April 2019):

- Care for 150 stray animals on and around campus
- Food, vaccination, neutering, and medical assistance provided
- Demonstrating compassion and responsibility towards all living beings

Holistic Development Programs

Social Development Activities:

- Collaboration with NGOs: Kolkata Nivedita Shakti, VIBHA, Rotary Club, Lions Club, Inner Wheel Club
- Health check-up camps for community
- Hygiene and health workshops
- Cleanliness drives
- Workshops on social concerns

Cultural and Inclusive Programs:

- Blood donation camps organized by Smile Club

- Mental health webinars addressing psychological well-being
- Tree plantation drives for environmental responsibility
- Visits to child care homes, orphanages, and old age homes
- Donation camps encouraging student participation

Diversity, Inclusion, and Equity

Inclusive Campus Environment

Cultural Diversity Celebration:

- Different religious festivals celebrated: Christmas, Eid, Mahavir Jayanti, Buddha Purnima, Durga Puja, Holi (Basant Utsav), Chaat Puja, Navratri (Dandiya Utsav), Ravindra Jayanti
- Annual cultural festival with dedicated day for Indian contemporary and classical programs
- Multi-lingual extempore fests: Palabra Por Palabra, Ink and Echo, Word Waves promoting linguistic harmony

Regional and Linguistic Inclusivity:

- Teachers clarify doubts in vernacular languages (Hindi, Bengali) alongside English
- Hindi and Bengali used for morning assembly motivational messages
- Ethnic Day celebrations promoting cultural diversity
- International Mother Language Day observed

Gender Equity Promotion:

- Women given leadership roles: Registrar, Principal, Deans, HODs, Placement Cell heads
- Co-educational institute with gender-neutral uniforms
- Startups by all genders equally encouraged
- Committee heads selected on merit, not gender, race, or religion
- Counselling services and self-defence classes provided
- Training programs and workshops on gender equality through Rotary, Lions, Inner Wheel Clubs
- Virangana workshops celebrating International Women's Day

Accessibility and Barrier-Free Environment

Disabled-Friendly Infrastructure:

- Ramps for easy access to classrooms and centers
- Disabled-friendly washrooms

- Signage including tactile paths, lights, display boards, signposts
- Provision for human assistance, readers, scribes, soft copies of reading materials
- Screen reading facilities

Quality Assurance and Continuous Improvement

IQAC Functions and Achievements

Quality Monitoring (2022-23):

- 4 IQAC meetings held during the year
- Rs. 5 lakhs funding received for quality initiatives
- Minutes and compliance decisions uploaded on institutional website
- Spearheaded NBA accreditation preparation for MBA, ECE, ME departments
- Continuous curriculum upgradation as per industry requirements

Feedback Mechanisms:

- Structured feedback from students, teachers, employers, and alumni
- Daily feedback through online quizzes after theory classes
- Semester-wise feedback through questionnaires
- Action taken reports generated and shared with stakeholders
- Feedback analysis used for syllabus revision and quality improvement

Academic Audits:

- Regular internal and external academic audits conducted
- Guidelines prepared as per NAAC/NBA quality framework
- Extensive sessions organized to review audit reports
- Measures recommended for quality enhancement
- Participatory approach with stakeholder involvement

Accreditation and Recognition

National Accreditations:

- NAAC A Grade (CGPA 3.25) valid through 2024
- NBA accreditation for ECE and MBA departments (3 years)
- AICTE approval successfully received for all departments during 2022-23
- Autonomous status granted by University (January 20, 2019)

Data Submission and Transparency:

- Institutional data submitted to AISHE on December 30, 2022
- Annual Quality Assurance Report (AQAR) prepared and published
- Annual reports and newsletters published and disseminated
- Website maintained with comprehensive institutional information

Professional Development and Capacity Building

Faculty Development

Training Programs Organized (2022-23):

- 53 professional development and administrative training programmes organized
- 60 workshops/seminars on Research Methodology, IPR, Entrepreneurship, Skill Development
- 302 teachers underwent online/face-to-face Faculty Development Programmes
- 217 teachers provided financial support to attend conferences/workshops

Research and Publication Support:

- Reimbursement for conference registration fees
- Reimbursement for journal publication expenses
- Incentive schemes for patents, publications in conferences, journals, books
- Seed grants provided based on merit of research proposals

Staff Welfare and Capacity Building

Career Development:

- Performance appraisal system practiced
- Standard promotion policy followed
- Study leave for higher education approved by Director
- Grant-in-aid for research activities
- Foreign visit incentives provided

Financial Security:

- Provident Fund for all staff members
- Gratuity payment upon retirement
- Pension scheme for long-term security
- Performance recognition through monetary incentives
- Reimbursement of tuition fees for children of employees with 10+ years experience

Workshops and Capacity Building Programs

Research and Innovation Workshops

Research Methodology and Ethics (2022-23):

- 60 workshops/seminars conducted on research methodology
- Intellectual Property Rights (IPR) training sessions
- Entrepreneurship development programs
- Skill development initiatives
- Patent application guidance and support

Professional Skills Development

Capacity Building Initiatives:

- Essential Skills for Professionals (ESP) courses
- Skill Development for Professionals (SDP) courses
- 1,590 value-added courses offered
- 9,383 students enrolled in transferable and life skills courses
- Soft skill classes integrated in curriculum
- Foreign languages (French, Chinese) offered

Data and Metrics

Performance Indicator	Achievement
Governance Structure	
IQAC Meetings Held	4 meetings
IQAC Funding Received	Rs. 5 lakhs
Board of Governors Meetings	AQAR placed on Nov 23, 2023
NAAC Accreditation	A Grade (CGPA 3.25)
NBA Accreditation	ECE and MBA (3 years)
Autonomous Status	Granted Jan 20, 2019
AISHE Data Submission	Dec 30, 2022
Safety and Security	
CCTV Cameras	987 cameras

Security Officers	17 officers
ICC Operational Status	24x7 with emergency contacts
Student Grievances Resolved	251 examination grievances
Student Welfare	
Total Students	5,515 students
Student-Teacher Ratio	16:1 (5,515:349)
Mentors Assigned	431 mentors
Students Placed	1,194 students
Higher Education Progression	151 students
Competitive Exam Qualifications	133 students
Extension Program Participants	5,489 students
Field Work/Internships	4,411 students
Faculty and Staff	
Full-time Faculty	349 teachers
PhD Faculty	128 teachers
Research Guides	128 teachers
FDP Participants	302 teachers
Conference Support Provided	217 teachers
Training Programs Organized	53 programs
Academic Infrastructure	
Programs Offered	21 programs
Total Courses	1,321 courses
Syllabus Revision	19 programs
New Courses Introduced	181 courses
Employability Courses	619 courses
Value-Added Courses	1,590 courses
Value-Added Course Enrollment	9,383 students
ICT Infrastructure	
ICT-Enabled Classrooms	84 classrooms
Computer Systems	2,426 systems

LCD Projectors	158 projectors
Seminar Halls	15 halls
Library Resources	845,000 books/e-books
Internet Bandwidth	2.4 GBPS
Research and Innovation	
Seed Grant Funding	Rs. 267.30 lakhs
External Research Funding	Rs. 38 crore
Teachers with Research Projects	78 teachers
PhD Students Registered	79 students
Scopus Journal Publications	1009 papers
Books and Chapters Published	233 publications
Workshops/Seminars Conducted	60 events
Startups Supported	200+ student startups
Patents Filed	95+ patents
Community Engagement	
Extension Programs	35 programs
Awards for Extension Activities	186 awards
Inner Wheel Club Projects	5 major projects
Project Beneficiaries	379 individuals
Stray Animals Supported	150 animals (Pet Society)
Ethics and Transparency	
Code of Ethics Implementation	All four mechanisms
Financial Audits	Internal and external
E-Governance Areas	All four areas covered
Stakeholder Feedback	All four groups

Challenges, Institutional Responses, and Mitigation Strategies

- Sustaining engagement of diverse stakeholders in participatory governance as the institution expands. The university promotes inclusive decision-making through digital platforms, virtual consultations, and transparent reporting mechanisms that enhance accessibility and accountability.
- Maintaining uniform enforcement of safety protocols and grievance redressal procedures across all departments. Centralized ICT-based monitoring and periodic audits ensure policy consistency, quick resolution of issues, and adherence to institutional standards.
- Managing the needs of a diverse student body of over 5,000 individuals. The institution strengthens mentorship networks and introduces targeted support programs to address academic, psychological, and socio-economic diversity effectively.
- Balancing institutional autonomy with accountability to multiple external and internal stakeholders. Strategic frameworks outline clear decision-making authority, transparent documentation, and regular communication channels with government, accreditation, and community partners.
- Promoting awareness of constitutional values and ethical conduct across the student and research community. Citizenship education is embedded within curricula and activities, while research ethics training, peer review systems, and recognition of integrity reinforce a culture of responsible practice.

Future Roadmap and Strategic Plan (2023-24 and Beyond)

- **Enhanced Governance Systems:** Implement advanced digital governance platforms for real-time decision tracking, stakeholder consultation, and policy implementation monitoring by 2024.
- **Legal Literacy Expansion:** Establish dedicated legal literacy cell offering regular workshops, awareness programs, and consultations on rights, responsibilities, and constitutional values for all stakeholders.

- **Safety Infrastructure Upgrade:** Expand CCTV coverage to achieve 100% surveillance, increase security personnel to 25, and implement AI-based threat detection systems by 2025.
- **Grievance Redressal Enhancement:** Develop mobile application for grievance submission and tracking, reduce resolution time to maximum 7 days, and publish quarterly grievance redressal reports.
- **Research Ethics Excellence:** Establish Center of Excellence for Research Ethics offering certification programs, conducting regular audits, and serving as regional resource hub for ethical research practices.
- **Community Justice Programs:** Launch "Justice for All" initiative expanding legal aid, rights awareness, and conflict resolution services to 10,000+ community members annually by 2024.
- **Student Welfare Expansion:** Increase mental health counseling capacity, establish 24x7 health center, expand financial assistance fund to Rs. 1 crore, and create emergency response protocols.
- **Faculty Development:** Achieve 100% faculty participation in governance training, research ethics workshops, and leadership development programs by 2025.
- **E-Governance Excellence:** Implement blockchain-based certification system, AI-powered examination management, and comprehensive learning analytics platform for enhanced transparency and efficiency.
- **Inclusive Campus Goals:** Achieve universal accessibility certification, expand diversity representation in leadership positions, and implement comprehensive anti-discrimination training for all stakeholders.
- **Accountability Mechanisms:** Establish independent ombudsman office, conduct annual stakeholder satisfaction surveys, publish detailed annual accountability reports, and implement performance-based recognition systems.

- **Peace and Conflict Resolution:** Establish dedicated conflict resolution center offering mediation services, peace education programs, and training in non-violent communication for campus community.

Conclusion

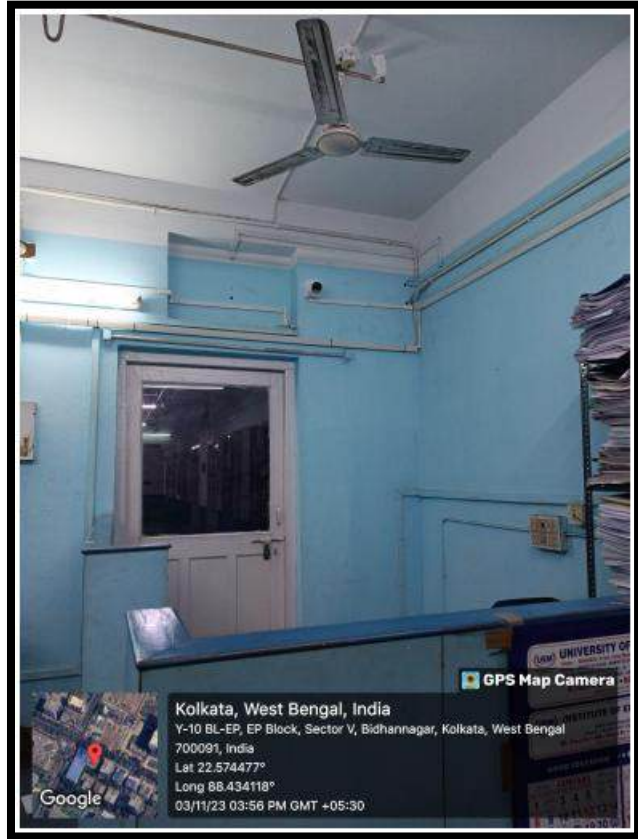
IEM Kolkata demonstrated strong SDG 16 commitment in 2022-23 through exemplary governance, safety infrastructure, and welfare systems, including 987 CCTV cameras, 17 security officers, and 24x7 ICC for a just campus. With 1:61 student-teacher ratio, 431 mentors supported 5,515 students, yielding 1,194 placements, 151 higher education progressions, and 133 competitive exam qualifications. Transparent operations via e-governance, 4 IQAC meetings, stakeholder feedback, and Rs. 38 crore research funding upheld integrity. Community efforts through 35 extensions (5,489 participants), Inner Wheel Club projects (379 beneficiaries), and Pet Society (150 animals) advanced social justice, validated by NAAC/NBA accreditations and 186 awards. Future plans include AI safety upgrades, legal literacy cells, mobile grievance apps, and Justice for All initiatives targeting 10,000 community members by 2024, ensuring sustained peace and accountability.

Photo Gallery

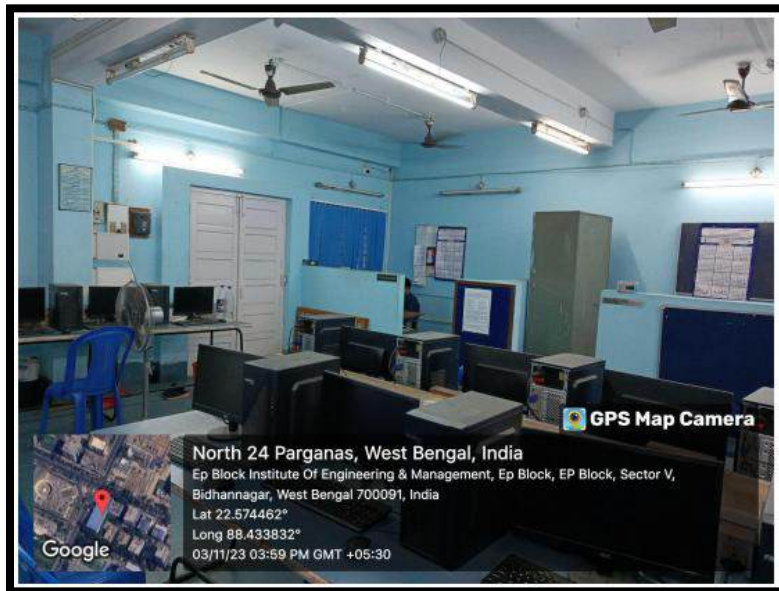


Security at front gate of IEM Salt Lake Campus

Security Personnel at the front gate of our Campuses



CCTV Cameras in Faculty Room



CCTV Cameras in all the Labs



CCTV Cameras in all the classrooms



Campus Surveillance through CCTV Cameras

Sustainable Development Goal 17: Partnership for the Goals

Vision, Mission, and Strategic Objectives

Institutional Vision

To be an integrated hub for transformative partnerships advancing research, education, and SDG outcomes.

Institutional Mission

Build robust linkages that empower innovation, knowledge exchange, resource mobilization, and positive social impact.

Strategic Objectives for 2022-23

- Broaden MoUs and strategic collaborations with universities, research organizations, industry, and NGOs.
- Enhance faculty and student exchanges, joint research, and training programs.
- Increase capacity-building and skill development initiatives for SDG-aligned projects.
- Mobilize funding and enable technology transfer supporting SDG priorities.
- Foster inclusive partnerships serving local and global communities.

Institutional Partnership Ecosystem

Industry-Academia Collaboration

- Student-centric industrial projects initiated under joint mentorship.
- Regular industry lectures, skill development/foreign certification courses through MoUs (Coursera, LinkedIn, EDX, Eduskills).
- Students placed for internships, joint project work, and skill training.
- Tech fests, hackathons, and coding competitions supported by industry partners foster hands-on learning.

International Linkages & Research

- Collaborative international conferences in partnership with leading global universities and professional societies.
- Multidisciplinary projects and joint publications with foreign collaborators.
- Encouragement for students and faculty to present at international events, supported by financial grants and fee reimbursements.

Community and NGO Partnerships

- Extension activities in collaboration with NGOs (Kolkata Nivedita Shakti, VIBHA) and clubs addressed local challenges in education, health, and environment.
- Clubs (Inner Wheel, Rotary, Lions) ran campaigns, outreach programs, and donation drives involving hundreds of students and beneficiaries.

Outreach & Social Impact

- 35 extension and outreach programs via NSS, NCC, community, and government initiatives.
- 5,489 students participated in extension and outreach, making measurable contributions to SDG 17 targets.

Capacity Building, Training & Dissemination

- 1,590 value-added courses and 619 entrepreneurship/employability-centric courses offered.
- 9,383 student enrollments in skills-transfer programs, including foreign languages.
- Continuous dissemination of best practices, audit results, and annual reports to partners and stakeholders.

Data and Metrics

Performance Indicator	Achievement
Collaborative Activities	3,214 joint activities
Functional MoUs	18 MoUs (national/international)
Industry Partners	TCS Innovation Lab, CII, PwC, etc.
International Conferences Hosted	45+ events
Student Startups Launched	200+ ventures
Patents Filed	95+ patents
Extension Programs Conducted	35 programs

Extension Program Participants	5,489 students
Community Beneficiaries	Hundreds through clubs
Faculty Development Programs	53 organized
Research Grants Secured	Rs. 38 crore (external)
Entrepreneurship Workshops	60 events
Student Skill Enrollment	9,383 in value-added courses
Employability-focused Courses	619 offered
Innovation Centers/IEDC	Multiple labs/incubators
International Linkages	Multiple joint projects/exchanges
Resource Mobilization for SDG	Active fundraising/grant receipt
Annual Report Dissemination	Shared with all partners

By executing over 3,200 collaborative activities, partnering with 18 major institutions and industry leaders, launching hundreds of startups, and embedding SDG-aligned training and outreach throughout its programs, IEM Kolkata’s partnership ecosystem made strong contributions to SDG 17. The community engagement footprint (35 extension programs, 5,489 student participants), international exposure (45+ conferences), and innovation (200+ startups, 95+ patents) showcase real progress in mobilizing knowledge, technology, and social capital for sustainable goals.

Challenges, Institutional Responses, and Mitigation Strategies

- Limited external funding for new sustainability projects is addressed through enhanced grant-writing capacity, international collaborations, and the pursuit of diversified funding streams to ensure long-term financial stability.
- Rapidly changing industry needs are met by maintaining flexible curricula, developing adaptive training programs, and creating dynamic partnerships that align academic initiatives with current market and sustainability trends.

- Barriers to inclusivity within partnerships are mitigated by actively extending collaborative initiatives to rural and underserved communities, fostering equitable access to opportunities and shared benefits.
- Gaps in partnership effectiveness and accountability are minimized through structured monitoring frameworks, data-driven evaluation tools, and transparent reporting mechanisms to measure social, environmental, and economic impact.
- To strengthen the institution's global contribution to SDG 17, integrated platforms for stakeholder dialogue, capacity-building workshops, and digital collaboration networks are promoted, enhancing cross-sector engagement and knowledge exchange.

Future Roadmap and Strategic Plan (2023-24 and Beyond)

- **Expand International Collaboration:** Seek new foreign university MoUs, joint degree programs, and exchange fellowships.
- **Deepen Innovation and Incubation:** Launch new innovation hubs focused on sustainability, energy, climate technology, and social entrepreneurship.
- **Increase Community Engagement:** Broaden extension programs to serve more beneficiaries and address emerging societal needs.
- **Enhance Resource Mobilization:** Pursue additional government/industry grants, alumni and donor support, and technology transfer opportunities.
- **Promote Open Knowledge Exchange:** Build digital platforms for sharing SDG-related resources and outcomes among stakeholders.
- **Capacity Development:** Grow faculty and student training to cover cutting-edge interdisciplinary skills and global best practices.

Conclusion

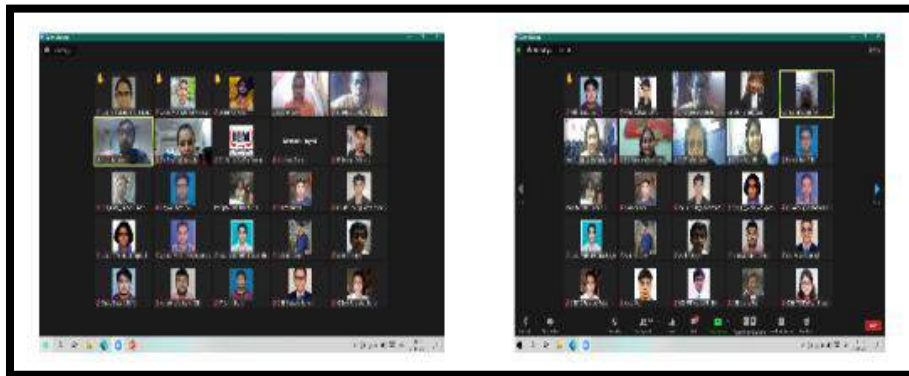
IEM Kolkata's 2022-23 SDG 17 efforts established a robust partnership ecosystem, driving innovation via industry-academia collaborations, international research linkages, and community outreach with NGOs like Kolkata Nivedita Shakti and VIBHA. Over 3,200 joint activities, 5,489 student participants in extensions, 9,383 skill enrollments, and significant grants demonstrate effective knowledge exchange and social impact. Challenges like funding gaps and inclusivity barriers were addressed through grant-writing enhancements, flexible curricula, and monitoring frameworks. The future roadmap emphasizes expanded

MoUs, innovation hubs for sustainability, broader community engagement, and digital platforms for stakeholder collaboration, ensuring sustained SDG contributions.

Photo Gallery



Dr. Binu James Mathew, College of Banking and Finance, Oman gave his engaging Talk on the “Maladies of Online Teaching Learning Process and Strategies to Shift to a Flipped Classroom Model”



An interactive and motivational session conducted by IEM Alumnus Mr. Alomoy Banerjee during the Student Induction Program



Workshop on cloud computing

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Google DSC IEM collaborated with The NorthCap University to bring ENGAGE 3.0

3.7.2 Details of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. during the year (only functional MoUs with ongoing activities to be considered)

Sl. No.	Name of the institution/ industry/ corporate house	Month and Year of signing MoU	Duration	List of activities under each MOU	Number of students/teachers who benefitted from MoUs
1	Oracle Academy	February, 2023	2 years	Cloud platform distribution	250
2	Sorting Hat Technologies Private Limited	August, 2022	1 year	Handson coding practice for students	150
3	EduSkills	2022	3 Years	Skill Development, IT Education and Workforce Development Programs	120
4	Saint Louis University	2022	5 Years	Academic and Research Collaboration	200
5	AIP Publishing LLC	2022	1 Year	Publishing Collaboration	110
6	CYPE	2020	5 Year	Skill development centre	80
7	Prem Jain Memorial	2022	5 year	Skill development centre	50
8	University of Huddersfield, UK,	2020	5 Year	On scientific and technological cooperation	30
9	D2O learning Pvt ltd	2022	2 year	Skill development centre	33
10	Coursera	2021	3year	Skill Development	1234
11	Search Within	2021	2 Years	Curriculum design for the short term course	20
12	Dirac Business Solutions Pvt. Ltd.	2020	5 Years	Upskilling students & faculty members through regular MOOCS Courses	15
13	Cibertix Technologies LLP	2022	Life -time	Skill Development	23
14	ISTEAM Research Pvt Ltd.	2021	Life -time	Skill Development	26
16	Jadavpur University	2022	Life-time	Skill Development	150
18	Springer	2023	1 Year	IEMRE Conference	150
19	AIP Publishing LLC	2022	1 Year	IEMPOWER Conference	33
17	SMS Group	2023	Life -time	Skill Development	75
18	Scholar Lab Foudation	45017	2 Years	Skill Development	50

Details of functional MoUs with institutions of national, international importance, other institutions etc. during the year