



**INTERNATIONAL CONFERENCE
ON
Engineered Materials for
Sustainable Development (EMSD
2024)**

July 24-26, 2024



**JOINTLY ORGANIZED BY:
Physics Department,
Punjab Engineering College
(Deemed to be University)
Chandigarh, India
&
National Agri-Food Biotechnology
Institute, Mohali, Punjab, India**

About PEC, Chandigarh

Punjab Engineering College (Deemed to be University) (PEC) having its roots in Lahore as Mugalpura Engineering College since 1921, moved to its present campus in 1953 as PEC affiliated to Panjab University. The institute became Deemed University in 2003 through a MHRD notification and rechristened as PEC University of Technology in 2009. The institute has 146 acres sprawling and pious campus and is house of Chandigarh College of Architecture also. The academic and administrative processes are similar to IITs in the country. With a history of 100 Years now, the institute has produced a number of alumni who have earned name and fame both for themselves and the institute. The institute offers 8 Undergraduate Programmes and 14 Post graduate Programmes in various disciplines of engineering and technology. After becoming University, the institute has also started PhD programme in various disciplines of engineering, science, management, humanities and social sciences. The admission to UG and PG programmes are made through national level examinations namely JEE (Mains) and GATE respectively.

About Physics Department

The Department offers core and specialized courses in Physics to students. The Department runs an active research program in frontier areas of science and technology. The faculty members of the Department work in emerging areas relevant to Ferroelectric materials, Thermoelectric materials, Functional nanomaterials for a better environment, healthcare devices, solar cells, composites, supercapacitors, and biosensing, to name a few. Numerous funding agencies have funded outcomes-based research activities. The Department is going to start a new course in M. Tech. (Quantum, Materials & Technology) w.e.f. session 2024-2025 and aspire to produce a trained and skilled workforce in this emerging domain.

About NABI, Mohali

National Agri-Food Biotechnology Institute (NABI) is the first Agri-Food Biotechnology Institute, established in India on 18th February 2010. The institute aims at catalyzing the transformation of Agri-food sector in India. The institute has the vision to be a nodal organization for knowledge generation and translational science leading to value-added products based on Agri-Food biotech innovations. The main research focus of NABI is to harness biotechnological tools in the area of Agriculture Biotechnology, Food and Nutritional Biotechnology so as to provide sustainable and novel solutions towards quality food and nutrition.

Activities undertaken at NABI under different areas includes,

- Agricultural, Food and Nutritional Biotechnology,
- Human Resource Development,
- Meeting and Courses and
- Technology Transfer and Outreach.

About Conference

The "Engineered Materials for Sustainable Development" conference addresses the urgent need for sustainable practices. It focuses on identifying, synthesizing, and applying engineered materials to enhance sustainability across various fields. The event promotes collaboration among experts, researchers, and industry leaders, providing a platform for sharing advancements. A pre-conference workshop explores applications in environmental and healthcare contexts. The conference encourages a comprehensive approach to sustainable solutions, fostering dialogue between researchers and industry professionals for effective commercialization. Global participation ensures diverse perspectives and international collaboration.

Call for Papers

EMSD-2024 is a top platform where groundbreaking advancements and scholarly discoveries in Engineered Materials for Sustainable Development take center stage. The conference will cover a range of topics, including:

- ❖ Layered materials & Soft materials (polymers)
- ❖ High-performance insulation materials
- ❖ Magnetic materials
- ❖ Quantum materials
- ❖ Thermoelectric materials
- ❖ Biomaterials & Bioimplants
- ❖ Organic nanomaterials
- ❖ Life cycle assessment of materials
- ❖ Nanocomposites for various applications
- ❖ Eco-friendly construction materials
- ❖ Sustainable materials in mechanical design
- ❖ Eco-friendly infrastructure materials
- ❖ Eco-friendly electronic components
- ❖ Sustainable materials in information technology
- ❖ Energy-efficient materials for machinery
- ❖ Environmental impact and safety of nanomaterials
- ❖ Materials for controlled release of fertilizers and pesticides
- ❖ Sustainable practices in food production
- ❖ Bio-inspired robotics and sensors
- ❖ IoT & AI in material technology
- ❖ Materials for environmental monitoring
- ❖ Biocompatible materials in healthcare & Biomedical devices
- ❖ Nanostructured materials (quantum dot, nanowire, nanoparticle, etc) & Nanoporous materials
- ❖ Optoelectronic and photochromic materials
- ❖ Heterogeneous catalysts
- ❖ Electrocatalysts
- ❖ Theoretical and computational aspects of materials
- ❖ Energy storage and conversion (batteries, capacitors, etc)
- ❖ Environmental application (water treatment, photocatalysts, etc)
- ❖ Photovoltaics, Sensors & Drug delivery and development
- ❖ Nano devices
- ❖ Adsorption and separation
- ❖ Waste to wealth conversion in circular economy
- ❖ Natural materials & interfaces
- ❖ Thin films
- ❖ Multifunctional materials

Registration Fees

Category	Indian Participants	Foreign Participants
Students (PhD/PG/UG)	3000/-	USD 200
Faculty/ Academia	5000/-	
Industry	6000/-	
Accompany person	1500/-	USD 100

Submission of Papers

Authors are required to submit one page abstract through mail in the below template. Authors may send full paper (after the acceptance of Abstract) for inclusion in conference proceedings.

AWARDS FOR BEST ORAL AND POSTER PRESENTATIONS.

Title: Times New Roman (Bold), 14

Text: Times New Roman, 12

Line spacing: 1.5 lines, Keywords: Max five

You can complete your registration online by using the provided link, and the registration fee can be conveniently paid through online methods such as NEFT/IMPS to the following account:

Account Name: Punjab Engineering College (Registration / Applications A/c)

Account No: 39083056639

IFSC Code: SBIN002452

STATE BANK OF INDIA

Branch: SBI, PEC, Sector 12, Chandigarh

Register link:

Dates to Remember

Category	Dates
Abstract Submission	10 th April 2024
Notification of Acceptance	15 th April 2024 onwards
Early bird registration	Upto 20 th May 2024
Last Date of Registration (with late fee of 500/-)	20 th June 2024

Accommodation Facility

Accommodation at the PEC and NABI Guest House is available for single and double occupancy at a designated cost. To secure these accommodations, participants can make reservations by submitting a request via email before the specified due date. Alternatively, several quality hotels are close to participants, allowing them to make direct bookings based on their preferences and requirements.

Conference Venue: Punjab Engineering College (Deemed to be University), Sector 12, Chandigarh

Address for Correspondence

Prof. Sandeep Kumar/Prof Nitin Kumar Singhal

E-mail: emsdpec2024@gmail.com

Google location:

<https://maps.app.goo.gl/dsRETQwe9GSPKaje6>

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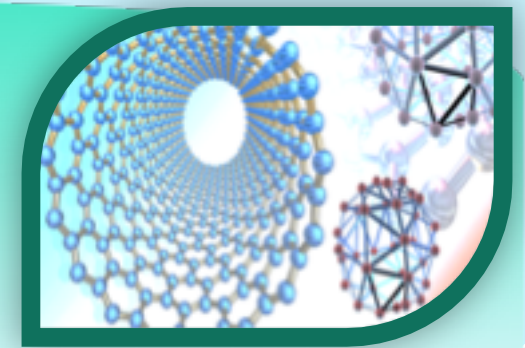
Contact us:

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Pre Conference Workshop

July 24, 2024



Workshop Highlight

Expert talk on “Achieving High Impact Factor Journal Publications” by Professor Reinhard Miller

Engineered Materials for Environmental and Healthcare Applications

Workshop Speakers

Professor Reinhard Miller
Professor Dong Kwon Lim
Professor Ajeet Kaushik

OUR CONFIRMED SPEAKERS



Professor Reinhard Miller,
TU Darmstadt, Germany
Editor: *Advances in Colloid and Interface Science*



Professor Dong Kwon Lim,
Korea University,
South Korea



Dr. Małgorzata Kujawska,
Poznan University of
Medical Sciences, Poland



Professor Vijay Kumar Thakur,
SRUC,
Edinburgh, UK



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About Chandigarh

Chandigarh, the capital of the northern Indian states of Punjab and Haryana, is known for its well-planned layout by Swiss-French architect Le Corbusier. Here are some of the hot spot areas for tourists in Chandigarh:

- ❖ **Rock Garden:** Unique sculpture garden made from recycled materials.
- ❖ **Sukhna Lake:** Serene reservoir offering boating and picturesque views.
- ❖ **Rose Garden:** Asia's largest rose garden with thousands of varieties.
- ❖ **Capitol Complex:** Architectural masterpiece by Le Corbusier housing government offices.
- ❖ **Sector 17 Market:** Vibrant commercial hub for shopping and dining.
- ❖ **Bird Park:** Nepli Reserve Forest in Chandigarh offers a serene escape for birdwatchers amidst the lush surroundings of the Sukhna Wildlife Sanctuary.
- ❖ **Government Museum and Art Gallery:** Home to Gandharan sculptures and modern Indian art.
- ❖ **Le Corbusier Centre:** Insight into the life and works of Le Corbusier.
- ❖ **Cactus Garden:** One of Asia's largest succulent gardens in nearby Panchkula.

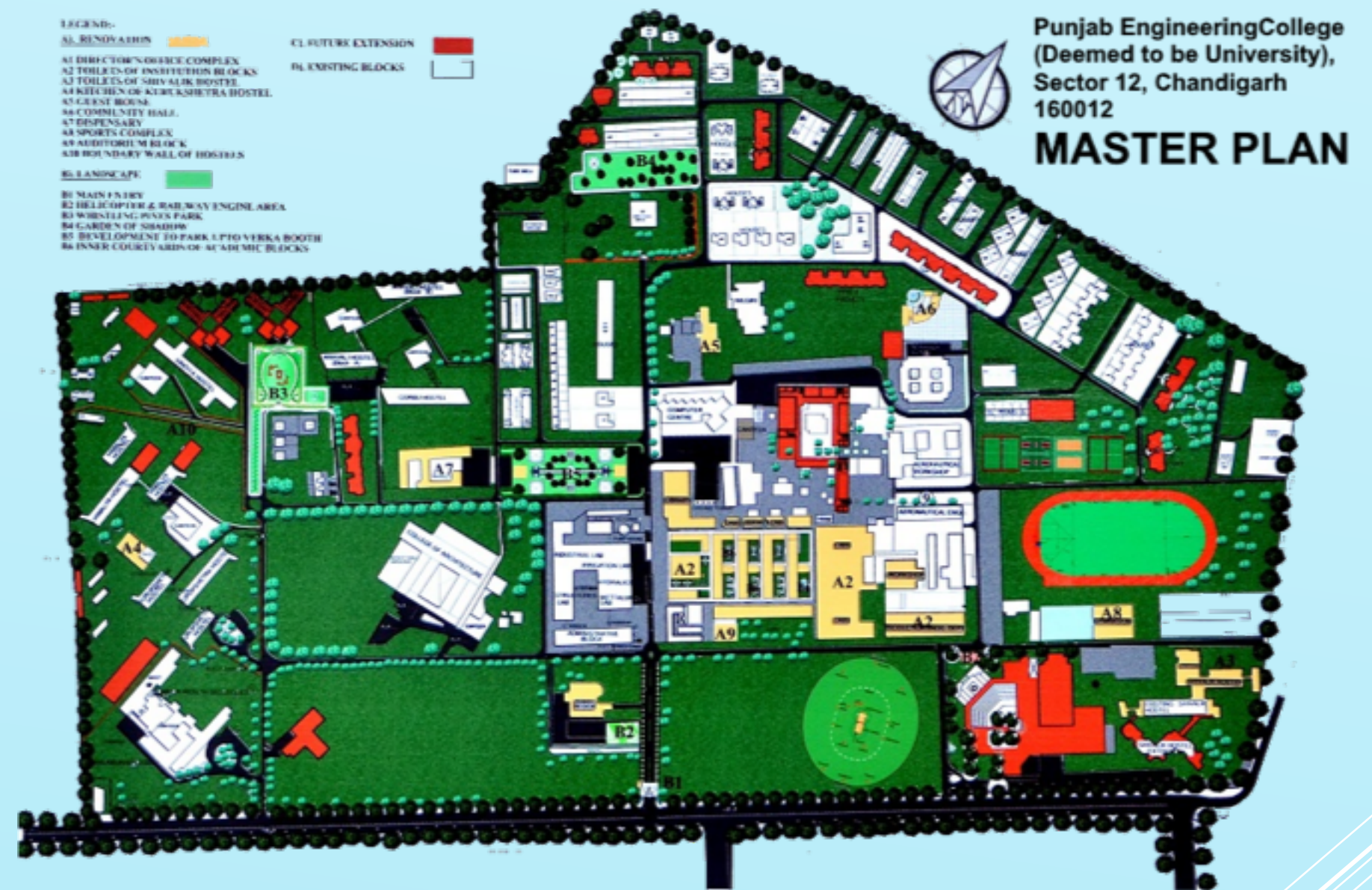


Chandigarh is indeed a hub of research institutes and educational centers, contributing significantly to research and development in various fields. With its well-planned infrastructure and strategic location, Chandigarh attracts numerous research institutions and organizations.

- ❖ **Institute of Microbial Technology (CSIR-IMTECH):** Prominent CSIR institute focusing on microbial research and biotechnology.
- ❖ **Postgraduate Institute of Medical Education and Research (PGIMER):** Leading medical and research institution conducting research across various medical disciplines.
- ❖ **Central Scientific Instruments Organization (CSIR-CSIO):** National laboratory dedicated to research, development, and design of scientific instruments and technologies.
- ❖ **Panjab University, Chandigarh:** Engages in research across various disciplines, including science, technology, humanities, and social sciences.
- ❖ **Indian Institute of Science Education and Research (IISER), Mohali:** Leading institute for scientific research and education located in close proximity to Chandigarh.
- ❖ **National Institute of Technical Teachers Training & Research (NITTTR-MHRD, GOI):** Focuses on research and development in technical education and offers training programs for technical teachers.
- ❖ **Institute of Nano Science and Technology (INST-DST, GOI):** Specializes in research and development in the field of nanoscience and nanotechnology.
- ❖ **National Institute of Pharmaceutical Education and Research (NIPER):** Conducts research and education in pharmaceutical sciences and related areas.
- ❖ **Terminal Ballistics Research Laboratory (DRDO-TBRL):** Engages in research and development in the field of terminal ballistics, including weapons and ammunition technology.
- ❖ **Semi-Conductor Laboratory (SCL)-Ministry of Electronics & IT, GOI:** Conducts research and development in semiconductor technology and related areas.
- ❖ **Centre for Development of Advanced Computing (C-DAC)- Ministry of Electronics & IT, GOI:** Conducts research and development in advanced computing technologies, including supercomputing and grid computing.

Several hotels located nearby (Within 10 Kms).

- Hotel City Plaza 17 - Sector 17
- Hotel Sunbeam Premium - Sector 22
- Hotel Regal 45 - Sector 45
- Hotel City Paradise - Sector 45
- Hotel Grand Residency - Sector 42
- Hotel Orange 35 - Sector 35
- Hotel Sapphire - Sector 35
- Hotel Rajshree - Sector 45
- Hotel Gobind Palace - Sector 22
- Hotel KC Residency - Sector 35
- Hotel Mount view - Sector 10
- Hotel Shivalik view - Sector 17
- Lemon Tree Hotel, Chandigarh - Industrial Area Phase I
- The Toy Hotel - Sector 34A
- Hotel City Heart Premium - Sector 17
- Hotel Icon - Sector 8C
- Hotel KLG Starlite - Sector 43B
- Hotel Aroma - Sector 22C



Local Buses timings: <https://chdctu.gov.in/time-table/local-routes>