ABOUT RESEARCH & DEVELOPMENT CELL

In an era where technology drives global progress, university research serves as the cornerstone of any nation's economic development. **MGM's College of Engineering & Technology, Noida**, is steadfast in its dedication to advancing basic and long-term research in emerging areas.

To support this mission, the Research & Development (R&D) Cell was established in January 2025. Its goal is to foster a culture of research-based teaching and learning, equipping students for successful careers. The R&D Cell's activities include:

- Developing PhD Research Centres.
- Conducting Faculty and Student Training & Support Programs.
- Recognizing and rewarding research achievements.
- Promoting faculty collaboration.
- Ensuring a balanced approach to teaching and research responsibilities.

The R&D Cell is committed to leveraging technology-driven collaborations and integrating academic research into the teaching curriculum. It is supported by a dedicated team, with one Department Research Coordinator (DRC) representing each department. Together, they work to align research efforts with the institution's academic goals.

Objectives of the R&D Cell

- **To Create and Maintain a Research-Conducive Environment**.
- **To Promote Research and Innovation Culture**.
- **To Facilitate Interaction with R&D Organizations and Institutes**.
- **To Enhance the Quality of Undergraduate.**
- **To Establish Centers of Excellence and Innovation Labs**.

Conducive Environment for R&D at MGMCoET, Noida

- **Experienced and Motivated Faculty**: A team of dedicated faculty members with extensive experience.
- **Faculty with Ph.D.**: A strong academic foundation with a significant number of faculty holding doctoral degrees.
- **Support for Publishing**: Encouragement and assistance for faculty and students to publish quality research papers and patents.
- **R&D Cell Support**: Active support from department heads and coordinators for R&D initiatives.
- **Active Research Groups**: All departments have dynamic and collaborative research groups.
- **Project Guidance**: Regular sessions on project selection, planning, and execution.
- **Promotion of Innovation**: Research activities in departments aim to foster innovation and creativity.
- **Inter-Department Collaboration**: Formation of interdisciplinary student research groups to enhance collaboration.

Expected Outcomes of R&D Cell

1. Research and Intellectual Contributions

- Increased number and quality of research proposals submitted to funding agencies.
- Growth in high-impact, peer-reviewed publications and patents.
- Encouragement of interdisciplinary research.

2. Collaborations and Partnerships

- Strengthened engagement with leading R&D organizations and academic institutions.
- Development of partnerships for joint projects, knowledge exchange, and resource sharing.

3. Educational Advancements

- Improvement in the quality of undergraduate projects through research integration.
- Promotion of research-driven learning methodologies.

4. Awareness and Knowledge Dissemination

- Increased awareness among students about current advances and emerging trends in science, engineering, and technology.
- Organization of workshops, seminars, and conferences to disseminate knowledge.

5. Industry and Societal Problem-Solving

- Enhanced participation of faculty and students in addressing industry-relevant challenges and societal issues.
- Translation of academic research into practical applications and solutions.

6. Innovation and Competitions

- Greater student involvement in national and international innovation activities such as hackathons (e.g., India Hackathon).
- Encouragement for students to develop prototypes, models, and solutions with entrepreneurial potential.

7. Holistic Development

- Cultivation of a research-oriented mindset among students and faculty.
- Increased motivation and capacity to contribute to scientific and technological progress globally.

Action Plan for Achieving Outcomes

1. Monitoring and Guiding Faculty to Obtain Research Grants

- **Action Steps:**
  - o Conduct workshops on grant writing and proposal preparation.
  - o Identify potential funding opportunities from agencies like AICTE, AKTU, CSIR, and others.
  - o Establish a support team for reviewing and improving faculty proposals.
  - o Set timelines and milestones for proposal submission and monitor progress.

2. Formulating Policies to Encourage R&D Culture

- **Action Steps:**
  - o Develop a reward and recognition system for outstanding research achievements.
  - o Allocate seed funding for pilot research projects within the institute.
  - o Introduce policies for flexible work hours and reduced teaching loads for faculty actively engaged in R&D.
  - o Create a well-equipped R&D cell with necessary infrastructure.

3. Liaising with R&D Organizations and Establishing MOUs

- **Action Steps:**
  - o Identify and approach reputed R&D organizations for collaboration.
  - o Organize networking events with representatives from R&D institutes.
  - o Draft and finalize MOUs detailing mutual benefits, shared resources, and collaborative projects.

4. Providing Guidance for Quality Publications and Patents

- **Action Steps:**
  - o Conduct training sessions on high-impact research paper writing and patent drafting.
  - o Partner with legal experts and patent attorneys for guidance.
  - o Encourage faculty and students to publish in SCOPUS/WoS-indexed journals and file patents through workshops.
  - o Track and document all publications and patents for periodic review.

5. Strengthening the R&D Cell through Department Heads and Coordinators

- **Action Steps:**
    - Form an R&D committee comprising department heads and coordinators to oversee research initiatives.
    - Hold regular meetings to evaluate progress and plan future activities.
    - Provide coordinators with training to support departmental research activities effectively.

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6. Establishing Active Research Groups in All Departments

- **Action Steps:**
    - Identify faculty and students with common research interests and form specialized groups.
    - Organize brainstorming sessions to define focus areas and objectives for each group.
    - Monitor research group activities and provide necessary resources.

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7. Organizing Research Promotion Activities

- **Action Steps:**
    - Schedule annual or biannual research conferences or symposiums.
    - Plan webinars, expert talks, and panel discussions on emerging research trends.
    - Host interdepartmental project showcases to encourage cross-disciplinary collaboration.

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8. Conducting Expert Sessions on Various Research Activities

- **Action Steps:**
    - Invite experienced researchers and industry experts for sessions on:
        - Selecting and executing research projects.
        - Writing grant proposals and research papers.
        - Filing patents and navigating intellectual property rights.
    - Create online and offline repositories of resources (e.g., templates, guides, recorded sessions).

Timeline for Implementation

- **Short-Term Goals (0–6 months):**
    - Establish R&D cell structure.
    - Initiate training and workshops.
    - Start liaising with R&D organizations.
- **Medium-Term Goals (6–12 months):**
    - Submit research proposals to funding agencies.
    - Organize the first round of expert sessions and research promotion activities.
- **Long-Term Goals (1 year+):**
    - Achieve quality publications, patents, and established MOUs.
    - Monitor and scale successful policies and initiatives.

TEAM: RESEARCH AND DEVELOPMENT CELL

Following team member from the department and sections are appointed to take the research activity forward to a higher level, under the leadership of Dr. Sunil J. Wagh, Principal.

List of Members Here

Department Research Coordinators (DRCs)	Designation and Name of the Department
Dr. Ram Prakash	Institute Research Coordinator
Dr. Karamjeet Kaur	Member, Computer Science & Engineering
Dr. Poonam Yadav	Member Electronics & Communication Engineering
Dr. Rajive Lodhi	Member First Year Engineering

This team will focus on driving innovative projects, fostering collaboration, and ensuring impactful research outcomes that align with institutional goals.

Dr. Sunil Wagh

Principal