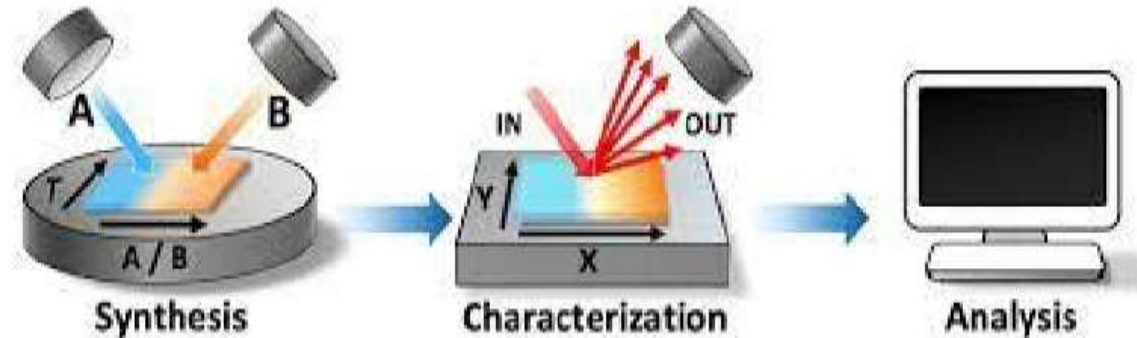


Placement Brochure 2022-24

MTech in Materials & Energy Engineering (MEE)



About the Program



The MTech in Materials and Energy Engineering is being offered in the School of Mechanical & Material Engineering (SMME). Over recent years there has been a steady growth in the renewable energy sector, which is vastly driven by boost of research in novel material incorporation in existing systems. The recent changes in government policies favoring non-conventional/renewable energy sectors, focused research on design and development of 'energy materials'/ efficient systems have clear implication on increased demand for specialists and engineers in this evolving scenario, both understanding the science and technology of material development.

The MTech Program on Materials and energy engineering strives to train the students in the field of Energy Materials, Renewable energy, Computation for Material design, Material Database, Energy storage systems and Materials for Energy Applications like Fuel cells, Solar & EV's. Hence, MTech MEE aims to train students who can walk both the shoes of an energy engineer/technologist.

Total Credits : 72

Course Work: 39 credit

Dissertation: 32 credit

Industrial training:
4-6 weeks (1 Credit)

PhD Conversion

8 CGPA in 1st year

Courses

Computational:

- Computational Method For Material Science
- Modelling & Simulations

Energy:

- Electrochemical Systems for energy engineering
- Emerging Energy Sources
- Energy Storage Technologies

Materials :

- Functional Materials
- Structure Property Correlation
- Photovoltaics Materials and fabrication
- Durability of Energy Materials

Electives :

- Informatics for Material Design
- Programming Practicum
- Map Reduce and Big Data
- Special Electrical Machines

Lab Facility:

- Advance materials and Research Center, Energy Systems Lab, Nanoscale Materials and Devices Lab, Thermoelectric materials Lab, Numerical experiment lab

Soft Skills :



Project by Students :

- Development, modelling & designing of agrovoltaics system for better land utilisation.
- Hydrogen embrittlement related degradation in strategic materials.
- Study of different ferroelectric polymer-ceramic composites fabricated using the tape-casting technique for water cleaning application.
- Design & manufacturing of floats of floating solar cell.
- Material characterisation of photovoltaics.



Achievements of Students

- Mr. Md Almasood M.Tech MEE has received DAAD KOSPIE Fellowship, 2023 at TU Braunschweig Germany.
- Mr. Naresh Babu Sharma M.Tech MEE got 11 months Internship opportunity at M/s Log9 Materials Scientific Pvt. Ltd.
- Mr. Shubham Chatterjee M.Tech MEE got 1 year Internship opportunity at M/s Customized Energy Solution Pvt. Ltd. & 6 months internship opportunity at M/s Log9 Materials Scientific Pvt. Ltd.
- Mr. Shashank Yadav M.Tech MEE won the election of Academic Secretary PG-2023

Contact us: Career & Placement Cell, IIT Mandi



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