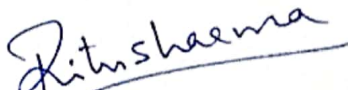


Proposal for announcing seat under the Institute Internship Program

(Separate form to be filled for seat under Institute funding and project funding)

1. Name of faculty member proposing: Dr. Ritu Sharma
2. Department/Centre: Department of Electronics and Communication Engineering
MNIT Jaipur.
3. Topic on which work is proposed: Design and Fabrication of Flexible Piezoelectric Biomechanical Energy Harvester
4. Preferred period of internship (after May 20th): Between 1 June May 2024 to 15 July 2024
5. Qualification of student (branch/semester of study): ECE / B.Tech Final Year
6. Brief description of work (300-500 words):
To design and fabricate polymer based flexible biomechanical piezoelectric energy harvester for human body's mechanical energy (vibration of organs, contraction/relaxation of muscles, heart-beats, blood circulation) harvesting. To design such type of biomechanical energy harvester flexible substrates (PET, PMN-PT, PDMS) along with the polymer, single crystal, ceramic based piezoelectric materials (ZnO nanowire, PVDF, PVDF-TrFE) can be used.
7. Expected learning of student (upto 100 words):
 - To provide the overview of the COMSOL Multiphysics[®] software for the designing of MEMS based sensors especially piezoelectric energy harvesters.
 - To provide the hands-on training on the fabrication techniques used for the development of flexible substrate using PDMS material.
8. Nature of work: (Experimental/simulation/mathematical modelling/data collection-analysis etc.): upto 50 words
 - Simulation on COMSOL Multiphysics[®] software for designing of flexible sensors
 - Fabrication of flexible sensors at MRC, MNIT Jaipur
9. If the seat is under project sponsored category: No
 - a) If yes, number of seats announced:
 - b) Name and ID no. of project from which stipend is chargeable


Dr. Ritu Sharma
Associate Professor
Dept. of ECE, MNIT Jaipur

Note:

- a) Proposing faculty member needs to be available at the Institute during the period internship is offered
- b) No extra space or funding than the stipend will be provided by the institute for this purpose

