

Department of Electronics and Communication Engineering

Centre for Micro Nano Design and Fabrication (CMNDF)

LIST OF ONGOING PROJECTS CMNDF

1. Design of Electrothermal microgripper for biological applications.
2. Two stage DEP – Microchannel design for biological cell separation.
3. Design and optimization of Comb drive accelerometer.
4. Design of Paper-Based Microfluidic Channels: Velocity Profile Analysis and Wicking Effect.
5. Design of microchannels using inertial based cell separation applications
6. Multiparticle separation using dielectrophoretic principle for point of care testing
7. Hormone detection using electrochemical biosensor
8. Porous silicon formation for biosensing applications
9. Cholesterol detection using paper based microfluidics
10. Spiral microfluidics for biomolecule separation
11. Kidney on chip for preclinical drug testing and diagnosis
12. Bifunctional nanoencapsulation of PCM core with nanostructured shell for photocatalysis and TES applications.
13. Investigation of adsorption capability of different fiber papers coated with nanostructured materials for rotary desiccant dehumidifier.
14. Antibacterial activity of Ag nanoparticles by using green synthesis
15. Antibacterial activity of Tin oxide nanoparticles by using green synthesis method
16. Fabrication of super capacitor using porous silicon
17. Porous silicon formation for solar cell application
18. Fabrication of low cost master mold for microchannel structure without clean room facility
19. Synthesis of ZnO nanoparticles for cancer cell applications
20. Development of Silicon microfluidic device using conventional method
21. Optimization of silicon microchannel using nanosecond laser micromachining.