Facilitation Centre for Industrial Plasma Technologies

Institute for Plasma Research

Gandhinagar

Name : SOORAJ K P

Qualification : BS-MS (Dual Degree) in Physics

M.Tech in Fusion Science and Technology

Designation : Scientific Officer-D

Contact

Phone : 07923269020

Mobile : 8758170584

E-mail ID : sooraj@ipr.res.in

Field of Work

Ion beam Nano-patterning

Plasmonics

Surface Enhanced Raman Scattering

Magnetron Sputtering

Raman Spectroscopy

Scanning Electron Microscopy

Projects and Technologies

- Diseased biological tissue detection using SERS method
- Pesticide detection using SERS method

Publications (IEEE format)	• "Sputtering yield and nanopattern formation study of BNSiO2 (Borosil) at elevated temperature relevance to Hall Effect Thruster", Basanta Kumar Parida, **KP Sooraj**, Sukriti Hans, Vivek Pachchigar, Sebin Augustine, T Remyamol, MR Ajith, Mukesh Ranjan, Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms, 514, 1-7 (2022) • "SERS based detection of Dichlorvos pesticide using silver nanoparticles arrays: Influence of array wavelength/amplitude", Sebin Augustine, **KP Sooraj**, Vivek Pachchigar, C Murali Krishna, Mukesh Ranjan, Applied Surface Science, 544, 148878 (2021). • "Self-cleaning and bouncing behaviour of ion irradiation produced nanostructured superhydrophobic PTFE surfaces", Vivek Pachchigar, Mukesh Ranjan, **KP Sooraj**, Sebin Augustine, Devilal Kumawat, Kumudni Tahiliani, Subroto Mukherjee, Surface and Coatings Technology, 420, 127331 (2021). • "Cold cathode electron emission with ultralow turn-on fields from Au-nanoparticle-decorated self-organized Si nanofacets", Mahesh Saini, Ranveer Singh, KP Sooraj, Tanmoy Basu, Abhijit Roy, Biswarup Satpati, Sanjeev Kumar Srivastava, Mukesh Ranjan, Tapobrata Som, Journal of Materials Chemistry C, 8 (47), 16880-16895 (2020). • "Surfactant prevented growth and enhanced thermophysical properties of CuO nanofluid", Janki Shah, Mukesh Ranjan, **KP Sooraj**, Yogesh Sonvane, Sanjeev K Gupta, Journal of Molecular Liquids, 283, 550-557 (2019). • "SERS based detection of glucose with lower concentration than blood glucose level using plasmonic nanoparticle arrays", **KP Sooraj**, Mukesh Ranjan, Rekha Rao, Subroto Mukherjee, Applied Surface Science, 447, 576-581 (2018).
Patents	• Nil
Awards	• Nil