

NANOCARBON BASED FIELD EMISSION ELECTRICAL PROPULSION SYSTEM FOR NANO SATELLITE

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Small satellites play a significant role in the era of information and communication technology (ICT) and internet of things (IoT). The advancement in technology today allows the satellites to become smaller and yet carry greater capacity and capability payloads. Small satellites are expected to be used for applications in domains including environment, agriculture, climate change, mapping, navigation and scientific research. The Indian Space Research Organization (ISRO) which has launched over nine student satellites, is expanding the scope of small satellite launch. The extension of useful life of these small satellites depends very much on the ability to provision propulsion capability in these satellites. Hence the current effort is to develop indigenous capability for the development of nanocarbon based field assisted electron emitter arrays to be used in field emission electrical propulsion (FEED) system for nano satellite.

BIOGRAPHY

Nirupama M P is currently working as Faculty at BML Munjal University. She is a recipient of PhD assistantship under TEQIP and pursuing PhD from Jain University, Bangalore. She received her MTech (Electronics Engineering) degree from B M Sreenivasiah College of Engineering, Bangalore and B E (Electronics and Communication Engineering) from Dayanand Sagar College of Engineering, Bangalore. She involves herself in social work to support and empower women and children. With this interest in mind she obtained post graduate diploma in human rights from Indian Institute of Human Rights, New Delhi. She was a Project Assistant at NAL (National Aerospace Laboratories), Bangalore, India, during her B E and MTech final projects. She also worked as Research Scholar and Senior Research Fellow (SRF) at R V College of Engineering, Bangalore, India. She has over 10 years of teaching and industrial experience. Her areas of research include nanotechnology, aerospace, novel electronics materials and devices and vacuum nanoelectronics.

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