Shri Navneet Kumar Sharma is a mechanical engineer who joined RRCAT in 1998 after completing one year orientation course from 41st batch of BARC training school Mumbai. As a sponsored candidate, he completed M. Tech. in Thermal Engineering from IIT, Delhi in 2008. He is working for the development of Superconducting Radio Frequency Cavities for High Intensity Proton Linac for Indian Spallation Neutron Source (ISNS). He is involved in various thermal, fluid flow, structural, vibration and high frequency electromagnetic analysis and coupling of these domains. His specialization includes the application of Numerical Techniques for designing particle accelerator subsystems using ANSYS and Hyper Works FEA software. In RRCAT, he has been involved in the development of SCRF cavities and associated infrastructure. His work includes, Engineering design, fabrication, installation and commissioning of Vertical Test Stand (VTS) facility to evaluate performance of Superconducting cavities, Mechanical design and Lorentz Force Detuning (LFD) analysis for 1.3 GHz / 650 MHz SCRF cavity, Development of Semiautomatic Cavity Tuning Machine for 1.3 GHz / 650 MHz SCRF Cavities, Development of 650 MHz Centrifugal Barrel Polishing Machine, Design of Die and Punch for 325 MHz Single Spoke Resonators (SSR) and Engineering design and prototype fabrication for 352.2 MHz, 3.0 MeV Pulsed Radio Frequency Quadrupole (RFQ) Linac for H- Injector Linac. He is a member of team which has received DAE Group Achievement Awards for activities namely “Development of a Tuning Machine for 1.3 GHz Nine Cell Superconducting RF Cavity” for year 2015, “Setting up of Infrastructure Facilities and Development of Five Cell 1.3 GHz and First 650 MHz Super Conducting RF cavities” for year 2014 and “Development and Commissioning of Vertical Test Stand Facility for Characterization of Superconducting RF Cavities at 2 K” for year 2013.

Indigenous development of Cavity Tuning Machine for 1.3 GHz and 650 MHz SCRF Cavities and frequency and field flatness tuning of cavities using these machines, Engineering design of 650 MHz SCRF cavities for structural stability, Lorentz Force Detuning and pressure sensitivity, Mechanical design for spoke resonator components, Engineering design and prototype fabrication for 352.2 MHz, 3.0 MeV Pulsed Radio Frequency Quadrupole (RFQ) Linac for H- Injector Linac. 5) Engineering design and participation in fabrication, installation and commissioning of Vertical Test Stand (VTS) facility to evaluate performance of Superconducting cavities. 6) Structural analysis and fabrication for Bucket and Cavity Holding Fixture of 650 MHz Centrifugal Barrel Polishing Machine. 7) Thermal analysis of 352.2 MHz, 10 MeV Drift Tube Linac (DTL) for proposed H- Injector Linac Shri sharma Participated in Engineering design, fabrication, installation and commissioning of Vertical Test Stand (VTS) facility to evaluate performance of Superconducting cavities. I was actively involved in structural analysis for VTS assembly and thermal analysis for liquid nitrogen shield assembly.

• Mechanical design and Lorentz Force Detuning (LFD) analysis for 1.3 GHz / 650 MHz SCRF cavity.

• Development of Semiautomatic Cavity Tuning Machine for 1.3 GHz/650 GHz SCRF Cavities.

• Structural analysis and fabrication for Bucket and Cavity Holding Fixture of 650 MHz Centrifugal Barrel Polishing Machine.

• Design analysis of Die and Punch for 325 MHz Single Spoke Resonators (SSR).

• Engineering design and prototype fabrication for 352.2 MHz, 3.0 MeV Pulsed Radio Frequency Quadrupole (RFQ) Linac for H- Injector Linac

• Thermal analysis of 352.2 MHz, 10 MeV Drift Tube Linac (DTL) for proposed H- Injector Linac.