Project#1

**Non-intrusive real time investigation of the impact of nanoparticles on nucleate pool boiling heat transfer phenomena (*Ongoing*)**

Department of Science and Technology

Duration: 3 years (May 2019 to April 2022)

Role: Principal Investigator

Project#2

**Crystallization of silicate melt droplets under non-contact condition: Understanding chondrule formation in early solar system (*Ongoing*)**

Department of Science and Technology

Funded under ***SwarnaJayanti Fellowship of Government of India***

Duration: 5 years (August 2015 to August 2020)

Role: Principal Investigator

Project#3

**Development and application of Interferometric tomography set up for studying laser-produced plasma and effects of plasma-induced shock (*Completed*)**

Board of Research in Nuclear Sciences

Duration: 2.5 years (November 2016 to April 2019)

Role: Principal Investigator

Project#4

**In-situ imaging and numerical investigation of dendritic single-crystal solidification in multi-component alloys (*Completed*)**

Department of Science and Technology

Duration: 3 years (August 2016 to September 2019)

Role: Co-PI (PI: Prof. Shyam Karagadde)

Project#5

**Experimental Investigation of Nucleate Pool Boiling Phenomena and Applications (*Completed*)**

Cummins Technology India Ltd.

Duration: 4 years (October 2014 to October 2018)

Role: Co-PI (PI: Prof. Suneet Singh)

Project#6

**Experimental investigation of heat transfer enhancement using nanofluids in mini/micro channels: Applications in cooling of electronic components (*Completed*)**

Department of Science and Technology

Duration: 3 years (August 2016 to July 2019)

Role: Co-PI (PI: Dr. Divya Haridas)

Project#7

**Investigation of three-dimensional transport phenomena and surface kinetics of a growing protein crystal (*Completed*)**

Department of Science and Technology

Duration: 4 years (March 2013 to March 2017)

Role: Principal Investigator

Project#8

**Study of heat transfer from an impinging synthetic jet with application to electronic cooling (*Completed*)**

CSIR, India

Duration: 3 years (June 2013 to June 2016)

Role: Principal Investigator, (Co-PI: Prof. Amit Agrawal)

Project#9

**Numerical Investigation of 3-D Unsteady Fluid Flow and Conjugate Heat Transfer Characteristics in A Wavy Channel based PCHE Model (*Completed*)**

Board of Research in fusion Science and Technology (BRFST)

Duration: 3 years (May 2012 to March 2015)

Role: Co-PI (PI: Prof. Atul Sharma; Co-PI: Prof. S.V. Prabhu)

Project#10

**Development of optimization-based tomographic code for three-dimensional reconstruction of plasma characteristics of Aditya Tokamak and SST-1 (*Completed*)**

Board of Research in fusion Science and Technology (BRFST)

Duration: 2 years (September 2012 to August 2014)

Role: Principal Investigator (Co-PI: Prof. Suneet Singh)

Project#11

**Dual-wavelength interferometry and rainbow schlieren for characterization of buoyancy-induced convection during aqueous solution-based crystal growth processes (*Completed*)**

IRCC, IIT Bombay (As initial seed grant)

Duration: 4 years (July 2011 to June 2015)

Role: Principal Investigator