

Brief Biodata

Name Sunil Chaki

Qualifications M.Sc. (Physics) 1990, Sardar Patel University
Ph.D. (Physics) 1996, Sardar Patel University

Professional positions/ responsibilities

- **Professor**, PG Department of Physics, Sardar Patel University
- **Associate Director**, Centre for Interdisciplinary Studies in Science & Technology (CISST), Sardar Patel University
- **Incharge Dean**, Faculty of Engineering & Technology, Sardar Patel University
- **Coordinator**, SPU-SSIP-Navadhara (Student Startup, Innovation & Entrepreneur Cell), Sardar Patel University
- **Chairman**, Board of Studies in Applied & Interdisciplinary Sciences, Sardar Patel University

Research

Broad field :
Experimental Condensed Matter Physics

Area of Specialization :
Growth of single crystals of transition metal chalcogenides.
Study of compound semiconductors in thin films and nano forms.
Thermal studies of materials using iso-conversional models.

Few select publications :

- Two-dimensional molybdenum tungsten diselenide alloys: Photoluminescence, Raman scattering, and electrical transport.
ACS Nano **8** (2014) 7130 – 7137. **I. F. 14.588** (June 2021)
- Synthesis of manganese sulfide (MnS) thin films by chemical bath deposition and their characterization.
Journal of Materials Research and Technology **6**(2017) 123 – 128. **I.F. 5.289** (June 2021)
- Effect of Mn doping concentration on structural, vibrational and magnetic properties of NiO nanoparticles.
Advanced Powder Technology **29**(2018) 2394 – 2403. **I.F. 4.217** (June 2021)
- Effect of indium and antimony doping in SnS single crystals.
Materials Research Bulletin **63**(2015) 173 – 180. **I.F. 4.019** (June 2021)
- CuAlS₂ thin films–Dip coating deposition and characterization.
Journal of Science: Advanced Materials and Devices **2**(2017) 215 – 224. **I.F. 3.783** (June 2021)

Google Scholar Citations : **h Index: 21; i10 Index: 48** ((June 2021)

Research projects : In total six Major and Minor research projects completed

Ph.D. Theses :
2020
Shivam Patel
Growth and characterization of pristine and doped SnSe single crystals
Ankur Khimani

Synthesis, characterization and application of tin disulphide (SnS_2) single crystals, thin films and nanoparticles.

Ms. Reena Meena

Effect of nanomaterial on the characteristics of the transformer oil.

2019

Sanjay Chauhan

Growth and Characterization of ternary CuInSe_2 .

2018

Ms. Tasmira Malek

Synthesis and characterization of iron oxide/ chalcogenides in nanoparticles and thin films forms.

2015

Mahesh Chaudhary

Synthesis and characterization of tin monosulphide nanomaterials, thin films and single crystals.

Kanchan Mahato

CuAlS_2 single crystals, thin films and nanoparticles – Synthesis and Characterization.

2014

Jiten Tailor

CuS – Single crystals, thin films, nanoparticles and their application.

M.Phil.

:

2021

Zubin Parekh

CuO nanoparticles – Synthesis by wet precipitation technique and its characterization.

Gaurav Patel

Sol-gel synthesis and thermal characterization of SnO_2 nanoparticles.

2019

Rohit Kannaujiya

Growth and characterization of tin telluride (SnTe) single crystals.

2016

Ankur Khimani

Comparative study of cadmium sulphide (CdS) thin films synthesized by chemical bath deposition and dip coating techniques.

2015

Ms. Jintal Patel

Thermal study of MoS_2 , MoSe_2 and MoSSe single crystals.

2014

Hardik Joshi

Synthesis and characterization of SnS_2 thin films by spin coating technique.

2013

Sanjay Chauhan

Synthesis and characterization of manganese sulfide (MnS) thin films.

Ms. Tasmirabanu Malek

Synthesis and characterization of Fe₂O₄ nanoparticles.

2011

Ms. Devangini Trivedi

Study of WSe_{1.93} single crystals and SnS₂ nanoparticles.

Jiten Tailor

Study of Mo_{0.6}W_{0.4}Se₂ single crystals and MnS nanoparticles.

2010

Mahesh Chaudhary

Study of tin monosulphide (SnS) nanoparticles and thin films synthesized by chemical route.

Kanchan Mahato

Study of copper monosulphide (CuS) nanoparticles synthesized by wet chemical method.

Visit abroad for Professional and research purposes

- Singapore, China, Germany, Italy

Membership of professional bodies

- Indian Physics Association.
- Indian Association for Crystal Growth.
- Indian Association of Physics Teachers.
- Materials Research Society of India.

Awards & recognitions

- Teresa Muller Prize for scoring highest marks in Mathematics at Secondary School Examination 1983.
- CSIR-Senior Research Fellowship 1993 - 1995.
- The INSA-Visiting Fellowship 1997 – 1998.
- Hari Ohm Ashram Prerit Shri Bhaikaka Inter University Smarak Trust Award for best research paper (twice) 2000 & 2010.