Biodata of Dr. Chinkhanlun Guite

Personal Information

- Full Name: Dr. Chinkhanlun Guite
- Date of Birth: 4 July 1981
- Nationality: Indian
- Languages Known: English (Fluent in speaking and writing), Hindi (Conversational)

Academic Background

- Ph.D. in Experimental Condensed Matter Physics – Indian Institute of Science (IISc), Bangalore, 2013
  - Thesis Topic: Experimental Studies of Electron Spin Dynamics in Semiconductors Using a Novel Radio Frequency Detection Technique.
- B.Sc. (Honours) in Physics – St. Stephen's College, Delhi University, 2003
- Higher Secondary Education (Science) – Jawahar Navodaya Vidyalaya, Churachandpur, 2000

Professional Experience

- Associate Professor, Department of Physics - St. Stephen's College, Delhi University (2026-Present)
  - Teaching undergraduate physics courses, and mentoring students.
- Assistant Professor, Department of Physics – St. Stephen's College, Delhi University (2015–2026(Feb.))
- Bursar (Chief Financial Officer) – St. Stephen's College (August 2021–2026 (June))
  - Responsible for overseeing the college's financial management, budgets, and administrative operations.
- Associate Dean of Residence – St. Stephen's College (2016–2021)
  - Supervised student residential life, discipline, and welfare.
- Postdoctoral Research Fellow – Nanyang Technological University (NTU), Singapore (2013–2015)
  - Conducted research on spintronics and magnetic nanostructures, contributing to on-chip applications of spintronic devices.

Research Contributions

Dr. Chinkhanlun Guite specializes in experimental condensed matter physics, particularly in spintronics. His research focuses on:

- Electron spin dynamics in semiconductors – Studying spin lifetimes and polarization efficiencies in materials like germanium and gallium arsenide.
- Spin-based electronic devices – Developing novel techniques to control and manipulate spin in materials for future electronic applications.
- Magnetic domain walls and nanoelectronics – Investigating domain wall generation in ferromagnetic nanowires for potential non-volatile memory and logic devices.

Publications and Patents

Select Research Publications

Dr. Guite has authored several international research papers in peer-reviewed journals, including:

1. All-electrical single domain wall generation for on-chip applications, Scientific Reports, 4, 7459 (2014).
2. Temperature dependence of spin lifetime and optical orientation efficiency of electrons in bulk Germanium, Applied Physics Letters, 101, 252404 (2012).
3. Measurement of electron spin lifetime and optical orientation efficiency in Germanium using electrical detection of radio frequency modulated spin polarization, Physical Review Letters, 107, 166603 (2011).
4. High Sensitivity Detection of Radio-Frequency Modulated Magnetic Moment in Semiconductors, Review of Scientific Instruments, 82, 103905 (2011).

Patents

1. Deterministic Generation of a Magnetic Domain Wall in Zero External Magnetic Field – Patent filed in Singapore.
2. Non-Volatile Logic Device – Patent Cooperation Treaty (PCT) Application for spintronics-based logic devices.

Awards and Recognitions

- Best Poster Award (2011): Received at the 56th DAE Solid State Physics Symposium for his research on electronic spin detection and spin lifetime measurement in GaAs at room temperature.

Affiliations and Memberships

- Member, Governing Body – St. Stephen's College (2021–Present): Contributing to the strategic planning and administration of the college.
- Treasurer, All India Association for Christian Higher Education (AIACHE) (2021–Present): Managing financial affairs for this national organization.
- Member, Internal Quality Assurance Cell (IQAC), St. Stephen's College (2021–Present): Ensuring academic and institutional quality.

Community and Social Involvement

- President, Social Service League (2021–2026): Leading student and faculty initiatives for social outreach programs.
- Adviser, Atal Tinkering Lab, St. Paul's Institute, Churachandpur, Manipur (2016–Present): Mentoring young students in innovation and STEM education.
- Faculty Advisor for Student Societies: Has served as a mentor for various college societies, including the Electronics Society, North East Society, Music Society, and more.