

Curriculum Vitae



Shampa Guin

Assistant Professor,
IRPE, CU

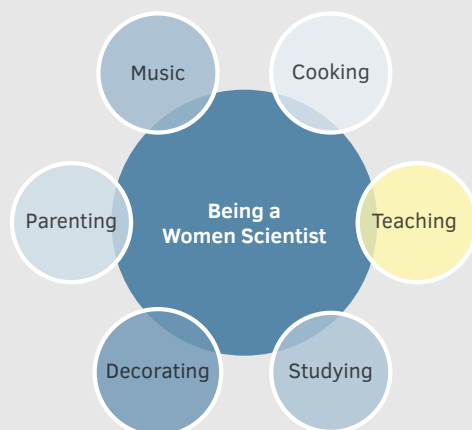
- Jan 29, 1987
- 45 Milan Pally, Belgharia, Kol-56
- +91 9477144319
- shampaphysics@gmail.com
- Indian
- Blood Group: **B+**

Key Skills

- Theoretical development and computation.
Received extensive training on the fabrication of certain types (pin diodes) of opto-electronic device in the clean rooms such as photolithography, etching, vapour deposition, passivation etc.
- Proficiency in opto-electronic test measurements such as gold wire bonding, electroluminescence, and temperature measurement.

About Me

My research interest includes Semiconductor Physics & Technology, Photonics & Light wave Technology, Nanophotonic Technology.



Working Experience

- 2016 – present **Assistant Professor** Calcutta Univ., Kolkata
Institute of Radio Physics & Electronics.
- July – Dec, 2013 **Visiting lecturer** Techno India, Kolkata
ECE

Education

Research

- 2013 – present **Ph.D** IRPE, CU
Performance Analysis of certain Nano Photonic Devices using Quantum Dot

Study

- 2013 **MTech** IRPE, CU
CGPA 9.89, Ranked 1
Master Thesis IRPE, CU
Performance Analysis of Core Shell Quantum Dot.
- 2008–2011 **BTech** IRPE, CU
CGPA 9.27, Ranked 2
- 2005 – 2008 **BSc Physics Hons** Visva-Bharati Univ.
77.78%, Ranked 2
- 2003 – 2005 **Pre-Degree (12th)** Visva-Bharati Univ.
85.67%
- 2003 **School Certificate (10th)** Visva-Bharati Univ.
85.11%

Awards

- 2020 Topper in NPTEL examination IIT Roorkee and swayam
- 2014 – 2016 INSPIRE Fellow under INSPIRE Program, DST, India
- 2015 SPIE Optics and Photonics Education Scholarship SPIE
- 2015 Best Poster Award in Workshop Photonics for Imaging and Sensing UKIERI
- 2013–2014 Technical Education Quality Improvement Program (TEQIP) Fellowship TEQIP
- 2013 GATE Fellowship for Master degree GATE
- 2010 Ram Charan Mitra Award for securing first position Calcutta Univ

Invited Lectures

- 2019 **Superluminescent Light Emitting Diode: Prospect for sub-cellular imaging** IEEE Photonics Society Kolkata Chapter
Workshop on “Photonics as Future of Technology 2019”, Supreme Knowledge Foundation group of Institution, Mankundu, Hoogly, India
- 2018 **Optical source for sub-cellular imaging** IEEE Photonics Society Kolkata Chapter
Workshop on “Women in Photonics 2018”, IRPE, University of Calcutta, Kolkata, India

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Activities

As the member of IEEE Photonics Society, we Organise different seminars, workshops, students' model (hardware and/or software) competitions, celebrate International Day of Light and Science day every year in rural area schools by encouraging students about science, technology and nature, encourage women scientists through Women in Photonics and young scientist through Young Professionals.

Visiting Researcher

Invited to the Department of Electronic and Electrical Engineering at the University of Sheffield (UK) under the UK-India Education and Research Initiative (UKIERI) sponsored by the British Council during 1st June- 8th August 2014 and 13th Feb- 8th March 2015.

Memberships



Member since 2016, Treasurer of IEEE Photonics Society Calcutta Chapter from 2016 to 2018 and Secretary of IEEE Photonics Society Calcutta Chapter from 2018 to present



Advisory of IEEE Calcutta University Photonics Society Student Branch Chapter since 2019



IEEE Student member (2010-2015) and Joint- Secretary (2015) of IEEE Photonics Society Student Branch Calcutta Chapter

Publications

Journals

- 2019 **Enhancement of optical gain in quantum dot ensemble with electric field**
Shampa Guin, Nikhil Ranjan Das
Superlattices and Microstructures **125**, pp 151–158
- 2020 **Modeling power and linewidth of quantum dot superluminescent light emitting diode**
Shampa Guin, Nikhil Ranjan Das
Journal of Applied Physics **128**, 083102

Book Chapters

- 2021 **Computers and Devices for Communication**
Shampa Guin and Nikhil Ranjan Das
N. R.Das et al. (Eds.) DOI 10.1007/978-981-15-8366-7, ISSN: 2367-3370, Lecture Notes in Networks and Systems Springer Nature Singapore Pte.
- 2019 **Advances in Computer, Communication and Control**
Shreerupa Biswas, S. Guin and N.R. Das
U. Biswas et al. (Eds.), Lecture Notes in Networks and Systems, Springer Nature Singapore Pte. Ltd., pp.449-467

International Conference Proceedings

- 2019 **Photon Density Distribution in Quantum Dot based Light Emitting Diode**
Shampa Guin and Nikhil Ranjan Das
7th International Conference on Computer and Devices for Communication (CODEC-2019),
Inst. of Radio Physics and Electronics, Univ. of Calcutta, India.
- 2018 **Electrical Tuning of Band Gap in Photonic Crystal**
Sonali Basak, S. Guin and N.R. Das
1st International Conference on Emerging Trends in Engineering and Science (ETES-2018),
Asansol Engg. College, India.
- 2018 **Photonic Crystal for Gas Sensing Application**
Shreerupa Biswas, S. Guin and N.R. Das
1st International Conference on Emerging Trends in Engineering and Science (ETES-2018),
Asansol Engg. College, India.
- 2017 **Gain and Linewidth Enhancement in Quantum Dots with External Electric Field**
Shampa Guin, N. R. Das
NUSOD 2017,
Denmark Technical University, Copenhagen.
- 2017 **Electric Field Aided Optical Gain in Semiconductor Quantum Dots**
Shampa Guin, N. R. Das
ICCS 2017,
University of Greenwich, London, United Kingdom.
- 2016 **Study the Effect of Inhomogeneous Broadening in Quantum Dots for Application in Medical Imaging**
Shampa Guin, N. R. Das
IEEE TENCON 2016 Conference,
Singapore
- 2015 **Modelling of Quantum Dot Superluminescent Light Emitting Diode for Sub-Cellular Imaging**
Shampa Guin, N. R. Das, J. Sarma, and R. A. Hogg
Workshop on "Photonics for Imaging and Sensing" under UKIERI Program between University of Sheffield and University of Calcutta,
Institute of Radiophysics and Electronics, University of Calcutta

- 2014 **Simulation of Quantum Dot Superluminescent Light Emitting Diodes for Optical Coherence Tomography Applications**
S. Guin, J. Sarma, N. R. Das and R. A. Hogg
UK Semiconductor,
Department of Electronics and Electrical Engineering, University of Sheffield, United Kingdom
- 2013 **Intersubband absorption in Core Shell Quantum Dot**
Shampa Guin, N.R.Das
International Conference on Microwave and Photonics (ICMAP),
Indian School of Mines (ISM), Dhanbad
- 2011 **Effect of Pulse Parameter and Dark Count Probability on the Performance of a gated mode Single Photon Avalanche Detector (SPAD)**
N.R. Das, Tania Das, Shampa Guin
International Workshop on Physics of Semiconductor Devices (IWPSD),
Indian Institute of Technology (IIT) Kanpur