

Curriculum - Vitae

Dr. S. SHANTHI, M.Sc., Ph.D.

Associate Professor

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Research Experience

- **Experience in Japan Universities/Institute – 11 Years**

- NICT, Tokyo, Hokkaido University, Osaka University and Shizuoka University

Senior Researcher: Space Communications System Laboratory,
Wireless Network Research Institute

National Institute of Information and Communications Technology,
NICT, Tokyo (Feb 2014 – March 2015)

Assistant Professor: Dept. of Quantum Information Photonics,
Hokkaido University (April 2010 – September 2012)

Assistant Professor: Dept. Photonics and Electronic Materials,
Institute of Scientific and Industrial Research,
Osaka University, Osaka (November 2003 – March 2010)

Visiting Scientist : Research Institute of Electronics,
Shizuoka University, Hamamatsu (June 2000 – March 2001)

- **Research Experience in India**

Senior Research Fellow (UGC Fellowship) – April 1995 - March 1998

Junior Research Fellow (UGC Fellowship) – April 1993 – March 1995

- Crystal Growth Centre, Anna University, Chennai.

Education

Ph.D Degree : Anna University 1999

M.Sc Degree : Madurai Kamaraj University 1991

B. Sc Degree : Madurai Kamaraj University 1989

Publications

- No. of papers published in International Journals/Proceds. – **24**
- No. of papers presented in International/National conferences - **71**

No. of Research Students Guided

- No. of doctoral students guided - 1
- No. of M.E/M.S students guided-2

Awards

- Selected as **CREST** project fellow for two and half years, (2010)
- **Best Poster Award** -“21st Century COE – Towards Creating New Industries based on Inter - Nanoscience – Third International Symposium 2005”, Shiga, Japan, March 9-10, 2005
- Selected for “Research Institute of Electronics Fellowship” at Shizuoka University for one year, (2000)
- Selected for “Max Plank Institute” Fellowship, Germany (2000) – Did not take up
- **Best poster Award**- Indian Science Congress Association 1999.
- Qualified in National Graduate Aptitude Test for Engineering (**GATE'91**) (Physics) India and awarded UGC JRF and SRF fellowships

Research Areas

- Establishment of free space optical link of about 8 Km (ground) as trial for space communication link for the propagation of entangled photon pairs – for secured quantum key distribution (QKD) application.
- Generation of energy-time and polarization hybrid entangled photon pair generation for the QKD applications
- Establishment of Superconducting nanowire single photon detector and Quantum metrology
- Generation and Investigations on broadband parametric correlated photon pairs for monocycle entangled photon pair source
- Investigations on GaN based Nanospintronic Materials
- Scanning Tunneling Microscopic Studies of III-Vheterostructures and nanomaterials
- Low temperature optical studies on GaN based spintronic materials and Nanorods
- Fabrication of LPE system and thin film deposition of thermo-photovoltaic material
- Fabrication and Investigations of InP based photovoltaic cells