

Prithu Roy

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SPIE.

Student Member

Reviewer

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Objective:

Research and Innovation

Education:

M.S | SEP, 2018- | ITMO UNIVERSITY

- **Major:** Nanophotonics and Metamaterial
- **Dept. :** Faculty of Technical Physics
- **SGPA:** 4.5 (5 point system)

B.TECH | AUG, 2012- AUG, 2016 | JAYPEE UNIVERSITY OF ENGINEERING AND TECHNOLOGY

- **Major:** Electronics and Communication
- **CGPA:** 7.8
- **% equivalent :** 81 %

Academic Project:

1. Plasmonics in Gallium Nanoparticle: Ongoing (Nov, 2018-):
Supervisor: Dr. Ivan Mukhin, Head of Renelab, SPBAU, Russia. <http://solar.spbau.ru/>
2. Development of an organic solar module with fullerene and non-fullerene acceptors using dielectric nanoparticles in the bulk heterojunction: Ongoing (April, 2019-)
Supervisor: Dr. Maria Sandhzieva (ITMO University)/Prof. Dr. Anvar Zakhidov (UT Dallas, US)
3. Fabrication of substrate-free flexible PDMS/Nanowire array device :(Jan, 2019- May, 2019)
Supervisor: Vladimir Neplokh, SPBAU, Russia.
4. "Designing dual frequency circularly polarized wide band patch antenna for X-band radar application". (May, 2015-June, 2016)
Supervisor; Associate Prof. Dr. R.K Vishwakarma, JUET-Guna, India

Schools and Certification:

1. Meditation in Plasmonics: *Short Course by Prof. Jacob Khurgin, John Hopkins University.*
2. Optical Scattering matrix for photonic Crystal Slab: *Prof Sergey Tikhodeev, Moscow State University.*

Experimental Skills:

1. Patch Antenna Fabrication: (Intermediate)
2. Organic Solar cell Fabrication: (Beginner)
3. PDMS and CNT Flexible substrate Fabrication: (Intermediate)
4. Molecular Beam Epitaxy (Veeco Gen III): (Beginner)
5. PL and Raman Measurement Setup: (Intermediate)
6. Cleanroom and Glove-box experience: (>100 hours)
7. Optical Characterization. (Intermediate)

Software Skills:

1. CST and COMSOL: (Intermediate)
2. Matlab & Python: Beginner
3. OriginPro: Intermediate

Research Paper:

1. **Prithu Roy**, Rashmi Singh, Akshay Jain, Prashant Bansal "**Wide Band Elliptical Ring Patch Antenna with Circular Polarization for K-band**" published in IJERT, volume. 4 - Issue. 11, November -2015, <http://dx.doi.org/10.17577/IJERTV4IS110441>

2. **Prithu Roy**, Paranjay Srivastava, Akshay Jain, Prashant Bansal "*Elliptical Ring Patch Antenna for X-Band Radar*" published in IJERT, volume. 5 -Issue. 1st January –2016, <http://dx.doi.org/10.17577/IJERTV5IS010671>
3. **Prithu Roy**, Rashmi Singh, Akshay Jain, R K Vishwakarma "*Multiband Millimeter Wave Antenna Array for 5G Communication*" indexed in IEEE Xplore, 6th Oct 2016. <https://doi.org/10.1109/ICETEESES.2016.7581361>.

Professional Experience:

1. **Engineer**
Organization: "M2M Telemechanics" Engineering Center, ITMO University, Russia.
Tenure: April, 2019-
2. **Assistant Science Teacher**
Organization: Gurukul Academy. India
Tenure: July, 2016- March, 2017
3. **Physics Teacher**
Organization: Golden flower Public School, India.
Tenure: April, 2017- March, 2018

Area of Interest

1. Plasmonics: SERS and Bio-sensing
2. Optoelectronic-device fabrication.
3. Nano-Antenna
4. Organic Solar-Cell

Extra-Curricular Activities & Achievements:

1. 100% tuition fees + Stipend Scholarship by **Metalab**, ITMO University, Russia.(2018-2020)
2. 97 percentile in National Level Engineering & Aptitude Test (GATE-2018)
3. Presented a technical paper in ICETEESES-2016, conference organized by IEEE.
4. Participated in Regional Level Science Exhibition organized by CBSE-2010
5. Certificate of Merit in state level Essay writing (Hindi) - West Bengal-2008.
6. Blog Writing. (<https://prithurajrai.blogspot.in/>)