Curriculum Vitae

Aniket Patra

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Current position

Ph.D scholar at Physics Department – University of Calabria and Italy Institute of Technology

Work experience

- Researcher at National Institute of Material Science, JAPAN (May2019-till date)
- Researcher at **Indian Institute of Science**, India (January 2018-April 2019)
- ➤ M.Tech trainee at CSIR-CGCRI-Kolkata, India (June2016-July2017)

Academic Qualifications

	Examination	Year	CGPA (10 th scale)	Institution	University/ Board
•	M.Tech (Nano Sc. & Tech.)	2017	CGPA- 8.65 (First class)	Jadavpur University	Jadavpur University
	B.Tech (Electronics & Communication Engineering)	2014	DGPA- 8.23 (First class)	Meghnad Saha Institute of Technology	Maulana Abul Kalam Azad University of Technology (MAKAUT /WBUT)

Research experience

- > InSb quantum dots for infrared photodiode (at NIMS, Japan)
- > Photocatalytic degradation of industrial waste water using ZnO catalyst (at IISc, India)
- > Piezoelectric nanocomposite as a nanogenerator (at CGCRI-Kolkata, India)
- Lead free piezoelectric substrate for actuators (at CGCRI-Kolkata, India)

Academic achievements

- ➤ Recipient of MHRD Indian Government Scholarship for pursuing Post Graduate Studies based on **Graduate**Aptitude Test in Engineering (GATE 2015).
- ➤ 3rd rank among 19 students in M.Tech.
- ➤ 3rd rank among 65 students in 12th standard school.

Publication

Journal publication

Polyvinylpyrrolidone modified Barium Zirconate Titanate /Polyvinylidene Fluoride Nanocomposites as Self-Powered Sensor. <u>Aniket Patra</u>, Avijit Pal, Shrabanee Sen, <u>Ceramics International</u> (Volume 44, Issue 10, July 2018, Pages 11196-11203)

- Enhanced Dielectric and Piezoelectric Behaviour of Tape Casted BCT-BZT Piezoelectric Wafer.
 A.Patra, A.Sasmal, S.Sen, A.Seal,
 Journal of Materials Science: Materials in Electronics (Volume 29, Issue 16, August 2018, Pages 14046–14054)
- Cauliflower shaped ZnO on Stainless Steel Mesh for Methylene Blue Degradation Through UV Light Active Catalysis.

<u>Aniket Patra,</u> Monoj Kumar Singha, (Under review)

Conference publication

- Shrabanee Sen, Avijit Pal, Aniket Patra, Ipsita Chinya "Development of Polymer-Ceramic Flexible Nanocomposites for Nanogenerator Application", International Conference on Nanotechnology: Ideas, Innovations & Initiatives (ICN:3I 2017), December, 06-08, 2017, IIT Roorkee, India
- ➤ Monoj Kumar Singha, **Aniket patra**, "Effect of ZnO on Stainless Steel Electrode for Piezeoelectric Application" 2019 IEEE Sensors Applications Symposium (SAS), 1-4
- Monoj Kumar Singha, Aniket Patra, Vineet Rojwal, KG Deepa, Dipanjan Kumar, "Ultrasonic spray pyrolysis deposited ZnO thin film for photocatalytic activity" <u>AIP Conference Proceedings 2082 (1)</u>, 030023

Skills

Synthesis skills

- > Solid state synthesis using Ball milling and Planetary milling machine.
- Chemical route synthesis using Spray pyrolysis, Schlenk line, Hydrothermal method, co-precipitation, Hot injections, Sol-gel.

Nanofabrication skills

- Spin coating
- Electron beam lithography
- > Thermal Evaporation
- Sputtering
- ➤ Hot-pressing and High temperature furnaces

Characterization skills

- Material characterization using Powder XRD, UV-Vis, Raman, PL spectroscopy, FE-SEM, XPS & TEM.
- > Transport measurement and electrical property measurement using Impedance analyser, Source Meter, Ferroelectric hysteresis measurement, Probe station

Software knowledge

C, MATLAB, LUMERICAL, Origin, LabVIEW, Blender.