NIL-55A, Malviya Nagar, New Delhi-17
Mobile: +91-9958241190
Email: suritabasu@gmail.com
surita_basu@yahoo.com

Dr. Surita Basu

CAREER SUMMARY

I completed my PhD, thesis titled as **"Study of miniaturization of surface patterns and self-organization of carbonaceous nanoparticles on soft thin films and their applications"** under the supervision of **Dr. Jayati Sarkar from Department of Chemical Engineering, Indian Institute of Technology Delh**i. Surface patterns and surface modifications in thin polymeric film with/without nanoparticles are of great demand in high end technologies like functional coatings, tissue engineering, electronics and others. These surface patterns created by self-assembly technique are affordable, convenient and economically viable method to create patterns on thin film. My experience with industrial R&D and QC&QA for 5 years after B.Tech has backed me with rich experience in the academics.

EDUCATION

Degree	Institute	CGPA/%	Year
PhD.	Chemical Engineering, Indian Institute of Technology Delhi, NewDelhi-110016	7.9	2015-2021
M.Tech	Nanoscience & Technology, Guru Gobind Singh Inderprastha University, Delhi-110078	82.84	2012-2014
B.Tech	Polymer Science & Technology, Calcutta University, Kolkata-700009	76.53	2002-2005
B. Sc	Chemistry, Calcutta University, Kolkata-700014	60.53	1999-2002
H.S	St. John Diocessan Girls HS School, Kolkata-700029	66.4	1997-1999

PUBLICATIONS

Paper published in journals

- Surita Basu, Bhukhya Vishnu Naik, Kalluri Ankarao, Prabir Patra, and Jayati Sarkar. Dewetting assisted self-assembly of graphene nanoparticles by diverse approaches. ***Bulletin of Materials Science volume (2021)*** 44:236
- Surita Basu, Bhukhya Vishnu Naik, Kalluri Ankarao, Prabir Patra, and Jayati Sarkar. Self-assembly of graphene nano-particles on biocompatible polymer through dewetting. ***Surfaces and Interfaces. (2021) 9:101009***
- Surita Basu and Jayati Sarkar. "Selective adsorption of oil on self-organized surface patterns formed over soft thin PDMS films." ***Chemical Engineering Science 207 (2019): 970-979***.
- Surita Basu and Jayati Sarkar. "Miniaturization of surface patterns in soft elastic film over patterned substrates." ***Chemical Engineering Science* 197 (2019): 195-203**.
- Jeevan Jyoti,, Surita Basu, Bhanu Pratap Singh, and S. R. Dhakate. "Superior mechanical and electrical properties of multiwall carbon nanotube reinforced acrylonitrile butadiene styrene high performance composites." ***Composites Part B: Engineering* 83 (2015): 58-65**.

Paper

- **7TH International Conference on Smart Materials & Nanotechnology, Webinar, 20-21 July 2020,** Nano Ring Formation of MWCNT by Dewetting of Thin Film**,** Surita Basu, Prabir Patra, Jayati Sarkar.

presented in conferences	• **International Conference Nano-M&D 2019, in Paestum, Italy from 4-8 June 2019,** Influence of graphene particles on morphology and patterns on dewetting of thin polystyrene film, Surita Basu, Bhukya Vishnu Naik ,Kalluri Ankarao, Prabir Patra, Jayati Sarkar. • **23rd Polish Conference on Chemical and Process Engineering- 23rd PCCandPE, in Jachranka-Warszawa, Poland, from 2-5 June 2019**, Selective adsorption of oil from oil-water mixture on the instability driven interfacial surface patterns over thin soft PDMS film, Surita Basu and Jayati Sarkar. • **International Conference on Advance Materials** (ICAM 2019), March 06-07, 2019, Jamia Millia Islamia, Delhi, Influence of graphene on morphology and patterns on dewetting of thin polymeric film, S. Basu, B. V. Naik, K. Ankarao, P. Patra and J. Sarkar • **3rd International Conference on Soft Materials**, December 09-14,2018, Malviya National stitute of Technology, Jaipur, Effect of graphene nanoparticles embedded in thin film, S. Basu, B. V. Naik, K. Ankarao, P. Patra and J. Sarkar • **Soft Matter: Young Investigators Meet 2018**, May 23 – 25 , 2018, Koti Resorts Shimla, Selective adsorption of oil on interfacial surface patterns over soft thin PDMS film, S. Basu and J. Sarkar • **International Conference on Sculptured Thin Films**, March 30-31, 2018, Indian Institute of Technology Delhi, Delhi, Adsorption of oil on surface patterns on thin elastic film, S. Basu and J. Sarkar • **Industry Day**, September 23, 2017, Indian Institute of Technology Delhi, Delhi, Oil adsorption on surface patterns, S. Basu and J. Sarkar. • **NanoIndia Conference**, March 15-16, 2017, Indian Institute of Technology Delhi, Miniaturization of surface patterns, S. Basu and J. Sarkar • **International Conference ComFlu @HYD**, December 12-14,2016, International Institute of Information Technology, Hyderabad, Miniaturization of surface patterns over patterned substrate, S. Basu and J. Sarkar • **Seventh National Level Annual Research Symposium of Chemical Engineering Research Scholars**, Chemference 2016, December 3-4, 2016, Indian Institute of Technology Gandhinagar, Gandhinagar, Miniscule pattern formation over patterned substrate, S. Basu and J. Sarkar.
Workshop attended	• Short course on Surface area and Porous material characterization, March 12, 2019, Indian Institute of Technology Delhi. • Workshop on Polymer Science and Technology, December 9, 2019 at Malviya National Institute of Technology, Jaipur. • Workshop on Advance Characterization Workshop on 3D Atom Probe Tomography, December 18-19, 2017, Indian Institute of Technology Delhi.

EXPERIENCE	
Work experience	• Worked with S. Chand Technologies Pvt. Ltd. from September 2009 to July 2010 as Subject Matter Expert. • Worked with Monochem Graphics Pvt. Ltd. from February 2008 to August 2009 as Sr. Engineer QA& QC. • Worked with STP Ltd. from June 2007 to December 2007 as Assistant Manager Marketing. • Worked with ICI India Ltd. from June 2005 to May, 2007 as Technical Officer R&D.

SKILLS	
Skills	• Research and Analysis and Problem Solving • Written and Oral Communication • Research and Project Management • Self-Management & Collaboration

ACHIEVEMENTS	
Projects	• Major Project on "Synthesis of MWCNT and reduced graphene oxide based acrylonitrile butadiene styrene composites and its application in electromagnetic interference" from CSIR-NPL as a part of M.Tech project. • Minor Project on "Graphene-bismuth ferrite nano-composite as a photo catalyst" as a part of M.Tech project. • Summer project on "Synthesis of polyaniline nanoparticle using polyether amine as stabilizer" from Calcutta University as a part of M.Tech. • Certification and implementation of ISO/TS 16949:2002 in Monochem Graphics Pvt. Ltd. • Developed "Lead and chromate free paints" in auto refinish range for ICI paints.
Awards and Certificates	• Research Excellence Travel Grant (2019) from Indian Institute of Technology Delhi. • CSIR Travel Grant for International travel (10472) in June 2019. • Certified Internal Auditor for ISO 9001:2000. • Certified Internal Auditor for ISO/TS 16949:2002.

PERSONAL INFORMATION	
DOB	• 04.09.1980
Marital Status	• Married
Children	• One Daughter
Father's and Mother's Name	• Tapan Kumar Basu • Bhabani Basu
Husband's Name	• Deepak Barua

REFERENCES

Dr. Bhanu Pratap Singh
Principal Scientist and Deputy Head
Advanced Carbon Products and Metrology Section
CSIR-National Physical Laboratory
Dr. K.S. Krishnan Road, New Delhi 110 012
bps@nplindia.org
+91-11-4560 8426

Prof. Anindya Datta
Professor
Room No: BFR-206
Guru Gobind Singh Indraprastha University
Sector - 16C, Dwarka, New Delhi - 110078 (India)
anindya.datta@ipu.ac.in
+91-11-4560 8426