

Curriculum Vitae

Dr. Kartick Mondal

Assistant Professor
Department of Chemical Engineering
National Institute of Technology Arunachal Pradesh
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Professional Experience & Administrative Responsibilities

Assistant Professor (Grade - I, Level - 12), 25th June 2019 - Till date

Assistant Professor (Grade - II, Level - 10), 27th May 2016 - 24th June 2019

Head, 14th August 2017 - 14th September 2020

Department of Chemical Engineering, National Institute of Technology, Arunachal Pradesh

Assistant Professor (On Contract Basis), August 2015 - December 2015, January 2016 - May 2016

Department of Chemical Engineering, Dr. B. R. Ambedkar National Institute of Technology Jalandhar

Project Scientist (Postdoctoral Research, On Contract Basis), November 2014 - August 2015

Department of Chemical Engineering, Indian Institute of Technology Kanpur

Research Topic : Instability, dynamics and morphology of pre-patterned ultra-thin film under the influence of attractive van der Waals force

Education

Doctor of Philosophy (Ph.D. in Chemical Engineering) 2014

Department of Chemical Engineering, Indian Institute of Technology Guwahati

Master of Technology (M.Tech in Chemical Engineering) 2009

Department of Chemical Engineering, University of Calcutta

Bachelor of Technology (B.Tech in Chemical Engineering) 2007

Department of Chemical Engineering, University of Calcutta

Bachelor of Science (B.Sc. Honours in Chemistry) 2004

Department of Chemistry, Barrackpore Rastraguru Surendranath College, University of Calcutta

Higher Secondary Examination (12th Class, Science, 71.9%, 1st Division) 2000

Barrackpur Debiprasad High School, West Bengal Council of Higher Secondary Education

Secondary Examination (10th Class, General, 80.25%, 1st Division) 1998

Titagarh Krishnanath Municipal High School, West Bengal Board of Secondary Education

Research Areas

- Micro/nano Mechanics of self-organizing thin films.
- Rheology of viscoelastic materials, liquid crystals, and smart materials.
- Intermolecular forces, colloids and surface/interface science.

Curriculum Vitae

Courses Taught

- Heat Transfer (UG)
- Numerical Methods in Chemical Engineering (UG)
- Chemical Reaction Engineering (UG)
- Process Control (UG)
- Mass Transfer - I (UG)
- Chemical Process Calculations (UG)
- Chemical Engineering Thermodynamics (UG)
- Chemical Process Technology - I (UG)
- UG Laboratories: Numerical Methods Lab

Publications

In Peer Reviewed Journals

- Electric-field-mediated instability modes and Fréedericksz transition of thin nematic films, **Kartick Mondal**, Abir Ghosh, Joydip Chaudhuri, and Dipankar Bandyopadhyay, **J. Fluid Mech.**, 834, 464 - 509, 2018.
- Pathways from disordered to ordered nanostructures from defect guided dewetting of ultrathin bilayers. Abhiram Hens, **Kartick Mondal**, Gautam Biswas, and Dipankar Bandyopadhyay, **J. Colloid Interface Sci.** 465, 128-139, 2016.
- Electro-capillary instabilities of thin leaky elastic-viscous bilayers. **Kartick Mondal**, and Dipankar Bandyopadhyay, **Phys. Fluids**, 26, 122006, 2014.
- Self-organized pathways to nanopatterns exploiting the instabilities of ultrathin confined bilayers. Abhiram Hens, **Kartick Mondal**, and Dipankar Bandyopadhyay, **Phys. Rev. E**, 87, 022405, 2013.
- Electric field induced instabilities of thin leaky bilayers: Pathways to unique morphologies and miniaturization. **Kartick Mondal**, Prashant Kumar, and Dipankar Bandyopadhyay, **J. Chem. Phys.** 138, 024705, 2013

In Conferences

- Influence of Charge Leakage and Slippage on the Electric Field Induced Patterns in Thin Bilayers. **Kartick Mondal**, Sunita Sen, Prashant Kumar, and Dipankar Bandyopadhyay, International Conference on Nano Science and Technology (ICONSAT 2014), Panjab University, Chandigarh, India (2nd - 5th March 2014).

Achievements:

Young Professionals

BIS Technical Committees, CHD 25: Soaps and other surface Active Agents

I hereby declare that the information furnished above is true to the best of my knowledge.

Date: 20th October 2020

(Kartick Mondal)

Place: Yupia, Arunachal Pradesh, 791112
