

Profile Page



Name : Dr Anurag Kumar Tiwari

Designation : Assistant Professor Grade-i

Department : Chemical Engineering

Qualification : Postdoc Mathematical Modelling (MS2Discovery Interdisciplinary Research Institute, Waterloo, Canada)
PhD Chemical Engineering (IIT Kanpur)
M.Tech Chemical Engineering (IIT Kanpur)
B.E Chemical Engineering (Pt.Ravishankar Shukla University Raipur(C.G))

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Research Interests :

Environmental and sustainability, Biofuels and Bioproducts, Waste to energy, Solid waste Management, New and Renewable Energy, Non-Newtonian Rheology, Porous media flow, Nanofluids, Biomedical waste, Bio-inspired adhesives, Microfluidics devices water treatment, Nanoplasmonics, Colloidal Suspension Rheology, Waste to Bio-hydrogen, small-scale stationary hydrogen production, wearable devices in healthcare. complex systems modeling.

Other Profile Links :

Google Scholar Link :

Anurag Kumar Tiwari [Click Here](#)[Orcid](#) [Click Here](#)[vidwan](#) [Click Here](#)[ResearchGATE](#) [Click Here](#)[Web of Science](#)
[Click Here](#)

Personal Web Link :

Micro/Nano Scale Transport Process Lab [Click Here](#)
Centre for Energy and Environment [Click Here](#)
MS2Discovery Interdisciplinary Research Institute, Canada [Click Here](#)

Journal Publications :

Year	Journal	Publication
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2022	Materials Today: Proceedings	Jahnavi Mahajan,Jaspinder Kaur,Roderick Melnik,Anurag Kumar Tiwari, Free convection heat transfer from a semi-circular cylinder inside a square enclosure: Orientation effects
2022	IOP Conference Series: Materials Science and Engineering	Prabhat Kumar, Jaspinder Kaur and Anurag Kumar Tiwari, Synthesis and Characterization of Manganese dioxide Agglomerated Nanoparticles for Supercapacitor Application
2022	IOP Conference Series: Materials Science and Engineering	Sunny Sihag, Manoj Kumar and Anurag Kumar Tiwari, CFD Validation and Aerodynamic Behaviour of NREL Phase VI Wind Turbine
2022	Materials Today: Proceedings	Anjali Gupta,Krutika Iyer Ganesh,Roderick Melnik,Anurag Kumar Tiwari, Mixed convection from semi-circular cylinder in Bingham plastic fluids: Adding buoyancy
2022	Chemical and Process Engineering	Jaspinder Kaur, Jatinder Kumar Ratan, Anurag Kumar Tiwari, “Heat transfer study from square cylinder immersed in water-based nanofluid: Effect of orientation”,
2022	Chemical and Process Engineering	P. Mishra, L. Mishra, A. K. Tiwari,“ Effect of aiding buoyancy on heat transfer from an isothermal square cylinder in power-law fluids”,
2022	Chemical and Process Engineering	A.K.Baranwal, A.K. Gupta, A.K. Tiwari, Roderick Melnik, “Effect of aspect ratio of enclosure on free convection from horizontal cylinders in Bingham plastic fluids”,
2021	Chemical Engineering & Technology	Smitarani Pati,Om Prakash Verma,Raj Kumar Arya,Anurag Kumar Tiwari, Transient Modeling and Simulation of Multiple Stage Evaporator in Paper Industry
2020	International Journal of Chemical Reactor Engineering (In press)	Jaspinder Kaur, Roderick Melnik and Anurag Kumar Tiwari, Forced convection heat transfer study of a blunt-headed cylinder in non-Newtonian power-law fluids
2019	Particuology 43, 157–170	Pragy Mishra, Anurag Kumar Tiwari, R. P. Chhabra, "Effect of orientation on drag of a cone settling in Bingham plastic fluids"
2018	Journal of Coupled Systems and Multiscale Dynamics, pp. 212-216(5)	Anurag Kumar Tiwari and Roderick Melnik, "Nonlocal optical response of nanowire-film system: Effect of geometric parameters"
2018	International communication of Heat and Mass Transfer, 93, 34-40	Pragy Mishra, Anurag Kumar Tiwari, R. P. Chhabra, “Effect of orientation on forced convection heat transfer from a heated cone in Bingham plastic fluid”,
2016	Journal of Thermophysics and Heat Transfer,30, 369-378.	Anurag Kumar Tiwari, R. P. Chhabra, "Free convection from a heated semi-circular cylinder in Bingham plastic fluids",
2015	Numerical Heat Transfer part A, 67, 330-356	Anurag Kumar Tiwari, R. P. Chhabra, "Laminar mixed convection in power-law fluids from a heated semi-circular cylinder: Effect of aiding buoyancy"r"
2015	Applied Mathematical Modelling, 39, 7045-7064	Anurag Kumar Tiwari, R. P. Chhabra, "Momentum and heat transfer from a semicircular cylinder in Bingham plastic fluids",
2014	Numerical Heat Transfer part A,65, 780-801	Anurag Kumar Tiwari, R. P. Chhabra, "Effect of orientation on steady laminar free convection heat transfer in power-law fluids from a heated triangular cylinder"
2014	Numerical Heat Transfer part A, 66, 1365-1388	Anurag Kumar Tiwari, R. P. Chhabra, "Momentum and heat transfer characteristics for the flow of power-law fluids over a semi-circular cylinder",
2013	International Journal of Heat and Mass Transfer, 58, 553-567	Anurag Kumar Tiwari, R. P. Chhabra, "Laminar natural convection in powerlaw liquids from a heated semi-circular cylinder with its flat side oriented downward",
2012	Soft Matter,8, 7228-7233.	Abhijit Majumder, Subrata Mondal, Anurag Kumar Tiwari, Animangsu Ghatak and Ashutosh Sharma,“Direction specific adhesion induced by subsurface liquid filled micro-channels”

2010	Journal of Adhesion Science and Technology, 24, 2681	Abhijit Majumder, Anurag Kumar Tiwari, K Korada, Animangsu. Ghatak, "Microchannel induced surface bulging of soft elastomeric layer",
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Conference Publications :

Year	Conference	Publication
2021	National e-conference on Recent Trends in Fluid Dynamics Research (RTFDR-21)	Anjali Gupta, Jaspinder Kaur Anurag Kumar Tiwari "Momentum and heat transfer Characteristics of the power law fluid past a solid sphere: Effect of confinement "
2021	National e-conference on Recent Trends in Fluid Dynamics Research (RTFDR-21)	Jahnavi Mahajan, Jaspinder Kaur Anurag Kumar Tiwari "Momentum and heat transfer Characteristics of the power law fluid past a solid cone: Effect of confinement"
2020	International conference on "Advances in Chemical Engineering-2020 (AdChE-2020)	Jaspinder Kaur, A. K. Tiwari, Jatinder Kumar Ratan "Forced convection heat transfer from a solid cone in Nano fluids: Effect of orientation"
2020	International Conference (CHEMCON-2020)	Jaspinder Kaur, Anurag Kumar Tiwari, Jatinder Kumar Ratan "Forced Convection Heat Transfer From A Tilted Square Cylinder In Nano Fluids: Effect Of Confinement Ratio (?)"
2019	International conference on Energy and Environment: Challenges and Opportunities for industries (ICEE-2019)	Jaspinder Kaur, Harmanpreet kaur, Ria Madaan, A. K. Tiwari "Forced convection heat transfer from tandem triangular cylinders in water base Nano fluids- effect of spacing and volumetric ratio"
2019	Advances in Chemical and Environmental Engineering (ACEE-2019), Dr B R Ambedkar National Institute of Technology, Jalandhar-144011, Punjab, INDIA	Jaspinder Kaur, Anurag Kumar Tiwari, Jatinder Kumar Ratan, Natural convection heat transfer from a heated semi-circular cylinder in a circular enclosure: Effect of orientation
2019	Proceedings of the 6th International Conference of Fluid Flow, Heat and Mass Transfer (FFHMT'19) Ottawa, Canada	Jaspinder Kaur, Anurag Kumar Tiwari, Jatinder Kumar Ratan, Hydrodynamic Study of Power-Law Fluids across Unconfined Semi-Circular Cylinder at Low Reynolds Numbers: Effect of Orientation angle
2018	CHEMCON 2018, NIT Jalandhar, Punjab, India	Jaspinder Kaur, Anurag Kumar Tiwari, Jatinder Kumar Ratan, "Viscoelastic fluid flow over a tilted square cylinder in creeping flow regime"
2018	CHEMCON 2018, NIT Jalandhar, Punjab, India	Nilanjan Dutta, A. K. Tiwari, Renu Gupta, Ajay Bansal, "Forced Convection Heat Transfer From a Blunt Headed Cylinder in Power-law Fluids"
2018	Nano-materials for Energy Conversion and Storage Applications, Pandit Deendayal Petroleum University (PDPU), Gandhinagar, Gujarat	Rajesh Vanshpati, Tushar Mishra and A K Tiwari, "Optical response in subnanometer gold nanowires: Shape effect"
2017	IV AMMCS International Conference, Waterloo, Ontario, Canada	Anurag Kumar Tiwari and Roderick Melnik "Nonlocal optical response of nanowire film system: gap effects",
2016	CHEMCON 2016, Anna University, Chennai, India	Stephin George, Sana Perween, Parth Samariya and Anurag Kumar Tiwari, "Laminar mixed convection in Bingham plastic fluids from a heated semi-circular cylinder: effect of aiding buoyancy",
2014	8th symposium on complex fluids (CompFlu-2014), JNCASR, Bangalore, India	Anoop Kumar Gupta, Anurag Kumar Tiwari and R. P. Chhabra, "Hydrodynamic characteristics of a circular disk oriented normal to flow in yield-stress fluids",

2013	International Conference on Advancement in Polymeric Materials, CIPET, Lucknow	Anurag Kumar Tiwari, R. P. Chhabra, "Mixed convection heat transfer from a heated triangular cylinder with apex facing upward immersed in power-law fluids",
2012	6th national symposium on Complex Fluids, IIT Gwahati	A. Chandra, Anurag Kumar Tiwari and R. P. Chhabra, "Effect of non-Newtonian rheology and orientation of fluid flow and heat transfer from a semi-circular cylinder",
14-16 Deceber, 2015	8th National Conference on Thermo-physical Properties, MNIT Jaipur	Gayasuddin Mansoori and Anurag Kumar Tiwari "On creeping drag flow of a Bingham Plastic fluid over a semi-circular cylinder: wall effects".

Events Organized :

Category	Type	Title	Venue	From	To	Designation
IICHe Conference	International	CHEMCON 2018	NIT Jalandhar	27-12-2018	30-12-2018	Technical Committee- Coordinating
IICHe Conference	International	CHEMCON 2018	NIT Jalandhar	27-12-2018	30-12-2018	Website Committee- Coordinating
One Day Webinar	National	Bioenergy: Transition and Technologies	NIT Jalandhar	03-07-20	03-07-20	Coordinator
One Day Webinar	National	Why A Manuscript is Rejected	NIT Jalandhar	27-08-20	27-08-20	Coordinator
One Day Webinar	National	IT not only Enabler, But Critical Element of Engineering and Business Operation	NIT Jalandhar	05-09-20	05-09-20	Coordinator
TEQIP-III sponsored One Week Online Short Term Course	National	Mathematical Modeling of Complex fluids	NIT Jalandhar	24-09-20	28-09-20	Coordinator
TEQIP-III sponsored One Week Online Short Term Course	National	Computational Methods in Engineering Science	Govt. Women Engineering College, Ajmer	24-11-20	28-11-20	Convener
TEQIP-III sponsored One Week Online Short Term Course	National	Computational Methods and Analysis for Engineers	NIT Jalandhar	18-11-20	22-11-20	Convener

TEQIP-III sponsored One Week Online Short Term Course	National	Energy application in Computer, Communication, Chemical, and Electronic Engineering	NIT Jalandhar	25-02-22	01-03-22	Coordinator
Conference	International	International Conference on Recent Development on Material, Reliability, Safety and Environmental Issues (IMRSE-21)	NIT Jalandhar	25-06-22	27-06-22	Joint Organizing Secretary
Conference	International	International Chemical Engineering Conference 2021(100 glorious years of Chemical Engineering & Technology)	NIT Jalandhar	17-09-22	19-09-22	Organizing Secretary

Professional Affiliations :

Designation	Organization
Member	Thermo-physical Society of India (TPSI)
Associate member	Indian Institute of Chemical Engineers (IICChE)
Member	Indian Society for Heat and Mass Transfer, India

PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Anchal Awasthi	Rnewable Energy	current	2021	NIL
Jaspinder Kaur	Momentum and heat transfer characteristics in Nanofluids	current	2018	Dr Jatinder Kumar Ratan

PG Dissertation Guided :

Student Name	Dissertation Title	Status	Year	Co-Supervisor
Sunny Sihag	Aeroelastic simulation of NREL Phase VI rotor using Fluid-Structure Interaction	doing	2022	Dr Manoj Kumar (Mechanical Engineering, NITJalandhar)
Krutika Iyer Ganesh	Interfacial mass transfer and chemical reaction from a spherical drop in viscoplastic fluids	doing	2022	Dr. Neelkanth Nirmalkar (Chemical Engineering IIT Ropar)
Prabhat Kumar	Nanofluid Application in Rnewable Energy	doing	2022	NO
Ankita Sharma	Momentum and heat transfer characteristics in Bingham plastic fluids	completed	2020	Dr Deepak Sahu
Nilanjan Dutta	Momentum and heat transfer characteristics in power-law fluids	completed	2019	Dr. Renu Gupta

Admin. Responsibilities :

Position Held	Organization	From	To
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Departmental placement coordinator	Chemical Engineering Department	19-01-18	till now
Departmental Library Coordinator	Chemical Engineering Department	19-01-18	till now
Mass Transfer Lab, Modelling and simulation Lab in charge	Chemical Engineering Department	19-01-18	till now
UG/PG Results Coordinator	Chemical Engineering Department	19-01-18	till now
Departmental Coordinator	TechNITI 2018, NIT Jalandhar	19-01-18	till now
Faculty Coordinator	Literary and Debating, UTKANSH-2018, NITJalandhar	19-01-18	till now
Member	Swachh Bharat Abhiyan, NIT Jalandhar	19-01-18	till now
Coordinator	Institute Hindi Cell Committee	19-01-2019	till now
Coordinator	Virtual Lab Committee	19-08-2020	till now
Co-Coordinator	Industry Institute Interaction	02-03-2021	
M. Tech Coordinator	Centre for Energy and Environment	03-07-2021	till now
Faculty Coordinator	Virtual Lab Committee, NIT Jalandhar	19-08-2020	till now
Faculty Coordinator	Departmental Alumni committee.	19-08-2020	till now
Reviewer(Chemical Engineering)	Journal of Engineering Research and Sciences	08-01-22	till now
Reviewer(Coatings & Films, Materials Science (CFM))	Journal of Engineering Research and Sciences	08-01-22	till now
Reviewer(Environmental Sciences (ENS))	Journal of Engineering Research and Sciences	08-01-22	till now
Reviewer(Nanoscience & Nanotechnology (NNT))	Journal of Engineering Research and Sciences	08-01-22	till now
Evaluation of TDVC Proposals	NRDC-Technology Development, Validation and Commercialization (TDVC) Program for the Year 2021-22	02-02-22	till now
Editorial Board Member	American Journal of Chemical Engineering, Science Publication Group, New York, USA	19-01-2020	till now
Editorial Board Member	Journal of Energy, Environmental & Chemical Engineering, Science Publication Group, New York, USA.	19-01-2020	till now
Reviewer	Advances in Science, Technology and Engineering System Journal (ASTESJ), ASTES Publishers, USA	19-01-2020	till now
Reviewer	47th International Conference on Fluids Mechanics and Fluid Power (FMFP2020), December 9-11, 2020, IIT Guwahati	19-01-2020	till now

Award and Honours :

Title	Activity	Given by	Year
Best Paper Award	International Conference, CHEMCON-2020	Indian Institute of Chemical Engineering (IChE) Headquarters & IChE Hyderabad Regional Centre	2020
4th Venus International Research Awards - VIRA	Young Scientist in Chemical Engineering	Venus International Foundation	2018
Best Poster Award	8th National Conference on Thermo-physical Properties,	MNIT Jaipur	2015