



THAPAR UNIVERSITY, PATIALA
DEPARTMENT OF CHEMICAL ENGINEERING
NEWSCASTER

Period: July – December 2015.

Date: February 17, 2016

1. Research Projects (new/ongoing)

Sr. No.	Project Title	Funding Agency	Year	Amount (Lacs)	Investigator (s)
1	Floating wick type vertical multiple effect diffusion solar still waste heat recovery,	DST Sponsored Project	2014-2016	11.224	Dr. Madhup Kumar Mittal and Dr. D. Gangacharyulu
2	Application software development to evaluate thermal performance of tube type, air to air heat exchangers for caca high rated electrical motors	CG Global R&D, Kanjur Marg, Mumbai		13.5	Dr. D. Gangacharyulu and Dr. Rajiv Sharma
3	Processing and characterization of fiber reinforced polymer nanocomposites and their degradation in marine environments	Naval Research Board (DRDO)	2012-2016	21.54	Rajeev Mehta (PI) Bikramjit Sharma (Co-PI)
4	Studies on STF – nanoclay based composites for personal armour systems	ARMREB (CDSW) DRDO	2014-2017	29.7644	Rajeev Mehta (PI)
5	Synthesis and characterization of high capacity adsorbents for CO ₂ capture	DST	2014-17	26.00	Dr. H. Bhunia Dr. P.K. Bajpai
6	Development of non-ecotoxic polyolefins with controlled environmental degradation by using high energy radiation	DAE-BRNS	2014-17	19.90	Dr. H. Bhunia Dr.P.K. Bajpai
7	Investigation of Hydrodynamics and RTD of pulp Digester using radiotracer technique	DAE-BRNS	2014-17	21.38	Dr. A.Chandra Dr. H. Bhunia Dr. P.K. Bajpai
8	Study of Hydrodynamics and Residence Time Distribution of Effluent Treatment Process (Biological) Using Radiotracer Technique	DAE-BRNS	2015-2018	24.51	Dr. V.K. Sangal Dr. H. Bhunia Dr.P.K. Bajpai
9	Measurement of Circulation time and optimization of mixing process for ethyl acetate reactor using Radiotracer Technique	DAE-BRNS	2015-2018	25.24	Dr. R.K. Gupta, Dr. H. Bhunia Dr. P.K. Bajpai
10	Transalkylation of DIPB with benzene over modified zeolite catalyst.A kinetic study	DST	2013-2016	23.75	Dr. S. Barman

2. Ph.D. Awarded

S. No.	Name of scholar	Name of supervisor	Thesis Title	Date of Completion
1	Mr. Gaurav Madhu	Dr. H. Bhunia Dr. P. K. Bajpai	Studies on degradability of high density polyethylene and polylactide blends	19-10-2015
2	Pooja Puri	Rajeev Mehta and Sunita Rattan	Synthesis and Characterization of Polyurethane Nanocomposites	Thesis Submitted (September 2015)
3	Shilpa Narang	Rajeev Mehta and S. N. Upadhyay	Synthesis of polycarbonates from carbon dioxide and propylene oxide	Thesis Submitted (December 2015)

3. Publications (SCI Journals)

Sr. No.	Title of paper	Author(s)	Journal name and other details	Impact factor
1	Temporal deterioration in thermal performance of screen mesh wick straight heat pipe using surfactant free aqueous nanofluids	Bhupinder Singh Bhullar, Dasaroju Gangacharyulu, Sarit Kumar Das	The Journal of Heat and Mass Transfer, Publisher: Springer Berlin Heidelberg, Accepted for publication by mail on February 17, 2016.	0.946
2	Augmented Thermal Performance of Straight Heat Pipe Employing Annular Screen Mesh Wick and Surfactant Free Stable Aqueous Nanofluids	Bhupinder Singh Bhullar, Dasaroju Gangacharyulu, Sarit Kumar Das	Heat Transfer Engineering, Publisher: Taylor & Francis, Accepted for publication by mail on October 18, 2015.	0.814
3	Kinetic studies on NaBH ₄ /H ₂ O hydrogen storage system with CoCl ₂ as catalyst	Arshdeep Kaur, D. Gangacharyulu, Pramod K. Bajpai	Bulgarian Chemical Communications, Accepted for publication by mail on September 25, 2015. (ID 3895).	0.201
4	Heat transfer and pressure drop characteristics dilute alumina-water nanofluids in a pipe at different power inputs	Richa Saxena, Dasaroju Gangacharyulu and V.K. Bulasara	Heat Transfer Engineering, Publisher: Taylor & Francis, Volume 37, Issue 18, 2016. DOI: 10.1080/01457632.2016.1151298	0.814
5	Effect of ply orientation on strength and failure mode of pin jointed unidirectional glass-epoxy nanoclay laminate	Singh M., Bhunia H., Saini J. S.	Defence Science Journal, 65 (6), 489-499, 2015	0.292
6	Resorcinol-formaldehyde based nanostructured carbons for CO ₂ adsorption: kinetics, isotherm and thermodynamic studies	C. Goel, H. Bhunia, P.K. Bajpai	RSC Advances, 5 (113), 93563-93578(2015).	3.840

7	Mechanical and wear testing of hybrid epoxy nanocomposites	Thind K. S., Saini J. S., Singh J., Bhunia H.	Indian Journal of Engineering and Materials Sciences, 22 (4), 421-428 2015.	0.413
8	Development of nitrogen enriched nanostructured carbon adsorbents for CO ₂ capture	Chitrakshi Goel, H. Bhunia, P.K. Bajpai	Journal of Environmental Management, 162, 20-29. October 2015	2.732
9	Synthesis of Poly(propylene carbonate) from Highly Active, Inexpensive Achiral SalphCo(III)X as Initiator and Bis(Triphenyl Phosphine) Iminium as Co-initiator	Shilpa Narang, Eva Macova, Dušan Berek, S.N.Upadhyay, Rajeev Mehta	Journal of Applied Polymer Science, 133(12), 43099-43105. December 2015	1.768
10	Optimization and evaluation of CBSOL LE red wool dye adsorption from aqueous solution onto commercial activated carbon	Parminder Kaur, Amrit P Singh, A K Prince, Jai Prakash Kushwaha	International Journal of Environmental Science and Technology, 12(12), December 2015, 3755-3766.	2.190
11	Copolymerization of Propylene Oxide and Carbon Dioxide	Shilpa Narang, Rajeev Mehta, S.Nath Upadhyay	Current Organic Chemistry, 19(24), 2344-2357. November 2015	2.157
12	Synthesis of highly conductive Polyurethane/Graphite composites for electromagnetic interference shielding	Pooja Puri, Rajeev Mehta, Sunita Rattan	Journal of Electronic Materials, 44(11), 4255-4268. November 2015	1.798
13	Adsorptive Removal of Biochanin A, an endocrine disrupting compound from its aqueous solution by synthesized zeolite NaA	N. Goyal, S. Barman, V.K. Bulasara	Desalination and Water Treatment, In Press, DOI: 10.1080/19443994.2015.1108872, October 2015	1.173
14	Performance of diffusion distillation column for production of fuel grade ethanol	Neetu Singh, Ram Prasad	Journal of chemical technology and biotechnology, 90(10), 1847-1854. October 2015	2.349
15	Status of the Reactive Extraction as a Method of Separation	Dipaloy Datta, S. Kumar, H. Uslu	Journal of Chemistry, 2015, 1-16. September 2015	0.361
16	Pristine and amino functionalized carbon nanotubes reinforced glass fiber epoxy composites	Mohit Garg, Shruti Sharma, Rajeev Mehta	Composites Part A: Applied Science and Manufacturing, 76, 92-101.	3.071
17	Discontinuity Analysis for the Treatment of Nonlinear Lumped-Parameter Systems for Singular Inputs	Sanjeev Ahuja	Theoretical Foundations of Chemical Engineering, 49 (5), 612-621. September 2015	0.576

18	Optimization of process parameters for transalkylation of toluene to xylene using response surface methodology	Ruchika Thakur, Raj Kumar Gupta, Sanghamitra Barman	Particulate Science and Technology, DOI:10.1080/02726351.2015.1081656, August 2015.	0.523
19	Decolorization and Degradation of Reactive Black 5 Dye by Photocatalysis: Modeling, Optimization and Kinetic Study	Alok Garg, Vikas K Sangal, P. K. Bajpai	Desalination and Water Treatment, doi: 10.1080/19443994.2015.1086697, August 2015.	1.173
20	Optimization of Photocatalytic Process Parameters for the Degradation of Acrylonitrile Using Box Behnken Design	Priyanka Singh, Amit Dhir, Vikas K Sangal	Desalination and Water Treatment, 55(6), 1501-1508. July 2015	1.173
21	Preparation of kaolin-based low-cost porous ceramic supports using different amounts of carbonates	H. Kaur, V.K. Bulasara, R.K. Gupta	Desalination and Water Treatment, In Press, DOI: 10.1080/19443994.2015.1068226, June 2015	1.173

Publications (Non-SCI Journals)

Sr. No.	Title of paper	Author(s)	Journal name and other details
1	Comparative Study of Various Thermo-Physical Properties of Metallic and Oxides Nanofluids	Suveg Singh, Sumeet Sharma and D. Gangacharyulu	International Journal of Engineering Sciences & Research Technology, 4. (7): July 2015, ISSN: 2277-9655, pp. 797 – 803.
2	Energy Audit of Boiler	Kabir Gaurav, Sumeet Sharma and D. Gangacharyulu	Journal of Material Science and Mechanical Engineering, Volume 2, Number 7, April – June, 2015, pp. 16-19. (Print ISSN: 2393-9095).

Conference Publications

Sr. No.	Title of paper	Author(s)	Name of the conference and other details
1	Enhancement of thermal conductivities among Al ₂ O ₃ , CNT, and CuO nanoparticles with different base fluids,	Harkirat Kaur and D. Gangacharyulu	Proceedings of the 23rd National Heat and Mass Transfer Conference and 1st International ISHMT-ASTFE Heat and Mass Transfer Conference IHMTTC2015, 17-19 th December, 2015, Thiruvananthapuram, Kerala, India, pp 155.
2	Experimental Study on Entrainment Characteristics of Al ₂ O ₃ -Water Nanofluid	N. Dhawan, D. Gangacharyulu and V.K. Bulasara	International Conference on Recent Advances in Nano-Science and Technology (RAINSAT-2015), Sathyabama University, Chennai, India, during 8th-10th July, 2015. Manuscript ID: RS-531 (Proceedings Page No. 85).

4. Placement (On-Campus & Off-Campus)

- **Ph.D. Chemical Engineering:**

Dr. Gaurav Madhu has been appointed as the Joint Director & Associate Professor, Indian Institute of Packaging (IIP), Mumbai.

5. Conferences Attended

S. No.	Name of the Faculty member	Name of the Conference	Place and Dates
1	Rajeev Mehta	INDO-UK Workshop on Sustainable Polymer Applications (IUWSPA 2015)	Dec 8-9, 2015 Thapar University, (Keynote address and chaired a session)
2	Alok Garg	2 nd National Conference on Advanced Oxidation Processes (AOP 2015)	Oct 15-16, 2015 Panjab University, Chandigarh - 160014
3	Neetu Singh	Futuristics in Mechanical Engineering (FME-2015)	M. M. M. University of Technology, Gorakhpur (U.P.), Nov 6-7, 2015
4	V K Sangal	2 nd National Conference on Advanced Oxidation Processes (AOP 2015)	Punjab University, Chandigarh, Oct 15-16, 2015

6. Contributed Chapters

Dr. Neetu Singh has contributed to a book chapter “Biogreases for Environment Friendly Lubrication” Vol. 6: Environment Series/ Studium Press, LLC USA, (In Press).

Dr. V.K. Sangal has contributed to a book chapter in Environmental Sci. and Eng. Vol. 4: Water Pollution: Water Quality, 2015.