



Resume

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Name : **DIPESH SHIKCHAND PATLE**
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Academic Summary

Degree	Discipline	Year	University	CGPA/ Percentage	Div.
Post Doctorate	PSE	2017	Politecnico Di Milano, Italy	-	
Ph.D. [Supervisors: Dr Zainal Ahmad (USM Malaysia) and Prof. G. P. Rangaiah (NUS Singapore)]	Simulation & Computer Aided Process	2015	Universiti Sains Malaysia, Malaysia	Graduation on time award (GOT)	-
M. E.	Chemical	2009	Birla Institute of Technology & Science (BITS) Pilani, Pilani Campus, Rajasthan	8.86/ 10	I
B. Tech.	Chemical	2007	Sant Gadge Baba Amravati University, Maharashtra	71.7 % (Final Year)	I

Career Objective

To work in a stimulating environment where I can apply and enhance my knowledge to serve the organization and society to the best of my efforts.

Work Experience

Institute/ Organization	Position	Experience (yrs)	Duration
Post-PhD			4 yrs & 7 months (Total)
MNNIT Allahabad	Assistant Professor	From 11/05/2018	
VIT Vellore	Associate Professor	30/06/2015 to 30/04/2018	
Pre-PhD			4 yrs & 5

			months (Total)
IIT Kharagpur	SRF (BARC)	06/08/2010 to 31/01/2012	
BITS Pilani	Lecturer	01/01/2010 to 31/07/2010	
BITS Pilani	Teaching Assistant	01/01/2008 to 31/12/2009	
BITS Pilani	Project Assistant	18/08/2007 to 31/12/2007	

Grants (Sanctioned)

<i>Sr No</i>	<i>On-going/ Completed</i>	<i>Duration (years)</i>	<i>Title</i>	<i>Agency</i>	<i>PI/ Co-PI</i>	<i>Amount (INR)</i>
1	On-going	3	In Situ Biodiesel Production from Microalgae using Ultrasonic Assisted Reactor	DST-SERB, India	PI	9.71 L
2	On-going	2	Direct Biodiesel Synthesis from Microalgae Through In Situ Transesterification using Homogeneous Catalyst	Research University (RUI), USM Malaysia	Co-PI	MYR 70,000 (i.e. ~12.5 L)
3	On-going	1	Ultrasound Assisted In Situ Fatty Acid Methyl Ester Production form Microplytes: A Dry Route Approach vs a Wet Route Approach.	TEQIP III	PI	2.00 L
4	Completed	1	Direct Biodiesel Synthesis from Microalgae Through In Situ Transesterification using Homogeneous Catalyst	SEED Grant, VIT Vellore	PI	2.85 L

Awards and Achievements

- Received a prestigious **Young Scientist Award** from **Venus International Foundation** on August 11, 2018.
- Received **Sanggar Sanjung Award 2014 (Journal Publication 2014)** from Universiti Sains Malaysia.
- Received **Erasmus Mundus Post Doctoral Fellowship** at Politecnico Di Milano, Italy in 2016.
- Entry '**Operator Training Simulator**' was selected as one of the finalists for the **Training and Development Award in IChemE Singapore Awards** in 2016.
- Achieved full financial support for pursuing Doctor of Philosophy and obtained **Graduation on Time** award (GOT) from Universiti Sains Malaysia.
- Achieved full financial support for pursuing ME and PhD.
- Achieved first prize in an international level paper presentation at COLLISION 2006 held at DDU Nadiad.
- Achieved All India Rank of 972 in GATE 2007.

Research Experience**Current Research**

Biodiesel production from microalgae using ionic liquid catalyst in ultrasonic assisted reactor (DST sponsored).

Process intensification and plantwide control of chemical processes.

PhD Research

Duration: From Oct 12 June 15

Two biodiesel production processes (both involving acid esterification and alkali transesterification) were simulated realistically and compared for economic and environmental objectives: profit, heat duty and organic waste. An Excel-based multi-objective optimization (EMOO) program for the elitist non-dominated sorting genetic algorithm (NSGA-II) was used to determine Pareto-optimal fronts. Subsequently, a suitable PWC system was developed for the better biodiesel process using the integrated framework of simulation and heuristics (IFSH) and its performance was tested for several plantwide performance criteria. Finally, an operator training simulator (OTS) was developed for the biodiesel process to train the operators for startups and several emergency situations.

Worked in a team on ‘design, modeling, simulation and cost analysis of CO₂ removal from synthesis gas using mixed amine solution’. [TNB Research Sdn. Bhd. Malaysia (259519-A) – A wholly owned subsidiary of TNB RESEARCH SDN. BHD]

Duration: From Jan 13 to April 13

Our team was involved in design, modeling and simulation of a plant for removing CO₂ from synthesis gas using the mixed amine solution. We proposed suitable operating conditions in order to absorb maximum CO₂ in mixed amine solution. Subsequently, we were responsible for the preliminary cost analysis of the plant.

Worked as Senior Research Fellow at Indian Institute of Technology (IIT) Kharagpur (BARC sponsored project entitled ‘Design, Modeling and Control of High Pressure Pilot Scale HIX Reactive Distillation’)

Duration: From 06/08/2010 to 31/01/2012

The main objective of the work was to develop and simulate equilibrium and non-equilibrium models for high pressure pilot scale HIX (a mixture of HI, I₂ and H₂O) reactive distillation unit. The main challenge was to propose a suitable thermodynamic model considering the complex behavior of feed components and insufficient experimental data. The developed models were simulated using Aspen Plus, considering e-NRTL property method. The binary interaction parameters were determined using genetic algorithm optimization as well as Aspen Plus Data Regression tool.

Professional Training

Completed one month inplant training, conducted at Koradi thermal power station (KTPS) Koradi, Maharashtra. (Maharashtra State Power Generation Co. Ltd)

Duration: From 01/06/2005 to 30/06/2005

Learnt various aspects of thermal power plant. My focus was on understanding the mechanism of the process and functioning of decentralized control system.

Participated in Occupational Safety and Health Course at USM Malaysia.

Duration: 26/10/2013

Learnt various aspects of operational safety and health, viz. causes, effects and preventions etc.

Editorial Board Member

- Guest Editor for a special issue of *Chemical Product and Process Modeling* (De-Gruyter) journal.
- Guest Editor for a special issue of *Journal of Indian Chemical Society*.
- Chemical Engineering Open Access Journal (SOAOJ) [<https://soaoj.com/editorial-board-chemical-engineering/>]

Peer-Review Activities

- *Elsevier* (ISA Transactions, Energy Conversion & Management, Fuel, Chemical Engineering Science etc.)
- **Taylor & Francis** (Chemical Engineering Communications)
- Book chapter for **Apple Academic Press Inc., USA** and others.

Professional Memberships

- Member of American Institute of Chemical Engineers (AIChE) [009901827490].
- Life Associate Member of Indian Institute of Chemical Engineers (**IChE**) [LAM-38851].
- Member of **BITSAA**, BITS Pilani [L-18428].

Book and Book Chapters

- **Patle, D.S.**; Shrikhande, S.; Rangaiah, G.P., Process Development, Design and Analysis of Microalgal Biodiesel Production Aided by Microwave and Ultrasonication, In *PSE for biofuels* (Ed. G. P. Rangaiah and A. Bonilla-Petriciolet), Wiley, 2020 (in press).
- **Patle, D.S.**; Khajone, V.B.; Bhagat, P. R.; Jaiswal, A.; Kumar, S., Application of functionalized ionic liquids for photodegradation of dyes, In Springer Handbook of Water Pollution and Remediation Technology (Ed. Inamuddin), Springer, 2020 (in press).
- Kumar, S.; **Patle, D.S.** An international conference on energy and environmental technologies for sustainable development 'Chem-Conflux20', (edited) Proceedings, Excellent Publishing House, New Delhi, March 23-24, 2012 (ISBN No.: 978-93-86238-86-3).
- Mohanta, H. K., **Patle, D. S.**, and Pani, A. K., "*Advanced process control*", Educational Development Division, Birla Institute of Technology and Science Pilani, 2010.
<http://bookshaukeen.in/insert.php>

Publications

Journals

1. **Patle, D.S.**; Agrawal, V.; Sharma, S.; Rangaiah, G.P. Plantwide Control and Process Safety of Formic Acid Process having a Reactive Dividing-Wall Column and Three Material Recycles, **Computers & Chemical Engineering**, 2020 (Accepted) (IF: 4)
2. **Patle, D.S.**; Pandey, A.; Srivastava, S.; Sawarkar, A.N.; Kumar, S. Ultrasound intensified biodiesel production from algal biomass: a review of current advancements, issues, and future directions, **Environmental Chemistry Letters**, 2020 (accepted) (IF: 5.9).

3. Shrikhande, S.; Babu, G.U.B.; Ahmad Z., **Patle, D.S.** Intensification and Analysis of Ethyl Levulinate Production Process having a Reactive Distillation through Vapor Recompression and Bottom Flash Techniques, **Chemical Engineering & Processing: Process Intensification**, 2020 (Accepted) (IF: 3.73)
4. Meshram, S.; **Patle, D.S.**; Babu, G.U.B. Model based control strategies to control voltage of Proton Exchange Membrane Fuel Cell, **Chemical Product and Process Modeling**, 2020 (accepted) (CiteScore: 1.6).
5. Khajone, V.B.; Balinge, K.R.; **Patle, D. S.**; Bhagat, P. R. Synthesis and characterization of polymer supported Fe-phthalocyanine entangled with carboxyl functionalized benzimidazolium moiety: A heterogeneous catalyst for efficient visible-light-driven degradation of organic dyes from aqueous solutions, **Journal of Molecular Liquids**, 288, 2019, 111032 (IF: 5.1).
<https://www.sciencedirect.com/science/article/pii/S016773221931997X>
6. **Patle, D. S.**; Manca D.; Salman, N.; Sharma S., Operator training simulators in virtual reality environment for process operators: a review, **Virtual Reality**, 23(3), 2019, 293-311. (IF: 3.63).
<https://link.springer.com/article/10.1007/s10055-018-0354-3>
7. **Patle, D. S.**; Sharma, S.; Gadhamsetti, A. P.; Balinge, K. R.; Bhagat, P. R.; Pandit, S.; Kumar, S. Ultrasonication-assisted and benzimidazolium-based brønsted acid ionic liquid-catalyzed transesterification of castor oil, **ACS Omega**, 3(11), 2018, 15455-15463 (IF:2.87).
<https://pubs.acs.org/doi/10.1021/acsomega.8b02021>
8. **Patle, D. S.**; Gadhamsetti, A. P.; Sharma, S.; Agrawal, V.; Rangaiah, G. P. Plantwide control of the formic acid production process using an integrated framework of simulation and heuristics, **Industrial & Engineering Chemistry Research**, 57 (40), 2018, 13478–13489 (IF: 3.57).
<https://pubs.acs.org/doi/abs/10.1021/acs.iecr.8b02654>
9. Sharma, S.; **Patle, D. S.**; Gadhamsetti, A. P.; Pandit, S.; Manca, D.; Nirmala G S. Intensification and performance assessment of the formic acid production process through a dividing wall reactive distillation column with vapor recompression, **Chemical Engineering and Processing: Process Intensification**, 123, 2018, 204-213. (IF: 3.73)
<https://www.sciencedirect.com/science/article/pii/S0255270117306803>
10. Khiratkar, A. G.; Balinge, K. R.; Krishnamurthy, M.; Cheralathan K. K.; **Patle, D. S.**; Singh, V.; Arora, A.; Bhagat, P. R. Sulphonic Acid-Functionalized Benzimidazolium based Poly ionic liquid Catalyzed Esterification of Levulinic Acid. **Catalysis Letters**, 2018, 148, 680–690 (IF: 2.5)
<https://link.springer.com/content/pdf/10.1007%2Fs10562-017-2284-1.pdf>
11. Khiratkar, A. G.; Balinge, K. R.; **Patle, D S.**; Krishnamurthy, M.; Cheralathan K. K.; Bhagat, P. R. Transesterification of Castor Oil using Benzimidazolium based Brønsted acidic Ionic Liquid Catalyst, **Fuel**, 2018, 231, 458–467 (IF: 5.58)
<https://www.sciencedirect.com/science/article/pii/S0016236118309505>

12. Balinge, K. R.; Khiratkar, A.G.; Krishnamurthy M.; **Patle, D. S.**; Cheralathan, K. K.; Bhagat, P. R., Deep-desulphurization of the petroleum diesel using the heterogeneous Brønsted acid IL catalyst, **Resource-Efficient Technologies**, 2016, 2, S105-S113.
<http://www.sciencedirect.com/science/article/pii/S2405653716300884>
13. Ranganayakulu, R.; Bhaskar Babu' G. U.; Rao. S.; **Patle, D. S.** A Comparative Study of recent Fractional Order PI/PID Tuning rules for Stable First Order Plus Time Delay Processes, **Resource-Efficient Technologies**, 2, 2016, S136-152.
<http://www.sciencedirect.com/science/article/pii/S2405653716300975>
14. Ahmad, Z.; **Patle, D. S.**; Rangaiah, G. P. Operator training simulator for biodiesel synthesis from waste cooking oil, **Process Safety and Environmental Protection**, 99, 2016, 58-68 (IF: 4.97).
[http://www.psep.ichemejournals.com/article/S0957-5820\(15\)00180-9/fulltext](http://www.psep.ichemejournals.com/article/S0957-5820(15)00180-9/fulltext)
15. Norhalim, A., Don, M. M., Ahmad, Z., Patle D. S., Modeling and optimisation of xylose production by enzymatic hydrolysis using neural network and particle swarm optimization, **Chemical Product and Process Modeling**, 10(3), 2015, 173-178 (CiteScore: 1.6).
<http://www.degruyter.com/view/j/cppm.2015.10.issue-3/cppm-2015-0008/cppm-2015-0008.xml>
16. Keong, L. S., Ahmad, Z., **Patle, D. S.**, Syukor, S. R., Biodiesel production using heterogeneous catalyst in cstr: sensitivity analysis and optimization, **IOP Conf. Series: Materials Science and Engineering**, 121, 2016.
<http://iopscience.iop.org/article/10.1088/1757-899X/121/1/012007/meta>
17. **Patle, D. S.**, Wei P. E., Ahmad, Z., Simulation and economic analysis of biodiesel production using supercritical methanol. **Journal of Engineering Science**, 11, 2015, 17–26.
[http://web.usm.my/jes/11_2015/JES%20Vol.%2011%202015%20-%20Art.%203\(17-26\).pdf](http://web.usm.my/jes/11_2015/JES%20Vol.%2011%202015%20-%20Art.%203(17-26).pdf)
18. **Patle, D. S.**, Ahmad, Z., Rangaiah, G. P., Multi-loop control system design for biodiesel process using waste cooking oil, **Journal of Physics: Conference Series**, 622 doi:10.1088/1742-6596/622/1/012011, 2015.
<http://iopscience.iop.org/article/10.1088/1742-6596/622/1/012011/meta>
19. **Patle, D. S.**, Ahmad, Z., Rangaiah, G. P., Plantwide control of biodiesel production from waste cooking oil using integrated framework of simulation and heuristics, **Industrial & Engineering Chemistry Research**, 53 (37), 2014, 14408–14418 (IF: 3.57).
<http://pubs.acs.org/doi/abs/10.1021/ie5023699>
20. **Patle, D. S.**, Sharma, S., Ahmad, Z., Rangaiah, G. P., Multi-objective optimization of two alkali catalyzed processes for bio-diesel from waste cooking oil, **Energy Conversion and Management**, 85, 2014, 361-372 (IF: 8.21).

<http://www.sciencedirect.com/science/article/pii/S0196890414004452>

21. **Patle, D. S.**, Ahmad, Z., Rangaiah, G. P., Operator training simulator in chemical industry: review, issues and future directions, **Reviews in Chemical Engineering**, 30(2), 2014, 199-216 (IF: 5.3).
<http://www.degruyter.com/view/j/revce.2014.30.issue-2/revce-2013-0027/revce-2013-0027.xml>
22. **Patle, D. S.**, Ahmad, Z., Techno-economic analysis of an alkali catalyzed biodiesel production using waste palm oil, **Applied Mechanics and Materials**, 465-466, 2014, 120-124.
<http://www.scientific.net/AMM.465-466.120>
23. Prakash, K. J., **Patle, D. S.**, Jana, A. K., Neuro-estimator based GMC control of a batch reactive distillation. **ISA Transactions**, 50, 2011, 357-363 (IF: 4.3).
<http://www.sciencedirect.com/science/article/pii/S0019057811000115>
24. Datta, D., **Patle, D. S.**, Sensitivity analysis of methyl acetate synthesis reactive distillation column, **IUP Journal of Science and Technology**, 6(3), 2010, 24-36.
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1687612
25. **Patle, D. S.**, Mohanta, H. K., Generic model control with adaptive state estimation for nonlinear CSTR, **The IUP Journal of Chemical Engineering**, 1(2), 2009, 22-36.
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1526990

Several other papers are under review/under preparation

Conferences

1. **Patle, D.S.**, Pandey, A. Kamlesh Balinge, Vijay Khajone, Pundlik Bhagat, Green Approach to Biodiesel Synthesis from Wet Microalgae using Ionic Liquid Catalyst in the Presence of Ultrasound, An international conference on energy and environmental technologies for sustainable development 'Chem-Conflux20', MNNIT Allahabad, **India**, Feb 14-16, 2020.
2. **Patle, D.S.**, Pandey, A., Srivastava, S., Ranjan, S. Ultrasonic Intensified Biodiesel Production from Algal Biomass: A Review of Current Advancements, Issues, and Future Directions, An international conference on energy and environmental technologies for sustainable development 'Chem-Conflux20', MNNIT Allahabad, **India**, Feb 14-16, 2020.
3. Kumar, A., Kumar, S., Sawarkar, A.N., **Patle, D.S.** In Situ Synthesis of Fatty Acid Methyl Ester from Microalgae: A Dry Route Approach vs A Wet Route Approach, An international conference on energy and environmental technologies for sustainable development 'Chem-Conflux20', MNNIT Allahabad, **India**, Feb 14-16, 2020.
4. Jaiswal, A., Pandey, S., **Patle, D.S.**, Kumar, S. Reactive Extraction of Pimelic Acid Using TOA in a Biocompatible Medium- Experimental and Mathematical Modeling, An international conference on energy and environmental technologies for sustainable development 'Chem-Conflux20', MNNIT Allahabad, **India**, Feb 14-16, 2020.
5. Ahmed, M., Ahmed, Z., Rohman, F.S., **Patle, D.S.** In-situ Transesterification of Microalgal Biomass: A Simulation Study, An international conference on energy and

- environmental technologies for sustainable development 'Chem-Conflux20', MNNIT Allahabad, **India**, Feb 14-16, 2020.
6. Buroolia, A.K., Gandu, R., Pandiyan Kuppusamy, R.,R., Rao,A.S. **Patle, D.S.** Babu, U.B. Batch Distillation for Separation of Ternary Zeotropic Mixtures: Dynamics and Control, An international conference on energy and environmental technologies for sustainable development 'Chem-Conflux20', MNNIT Allahabad, **India**, Feb 14-16, 2020.
 7. Shrikhande, S., Babu, G.U.B., Nirmala, G.S., Ahmad Z., **Patle, D.S.**, Investigating the influence of application of vapour recompression technique on ethyl levulinate reactive distillation, **Twelve International Conference on Thermal Engineering: Theory and Applications, Gandhinagar, India**, February 23-26, 2019.
 8. Keong, L. S., **Patle, D. S.**, Syukor, S. R., Ahmad, Z., Biodiesel production using heterogeneous catalyst in cstr: sensitivity analysis and optimization, **2nd Colloquium on Process Control, Sarawak, Malaysia**, November 6-7, 2015.
 9. **Patle, D. S.**, Ahmad, Z., Rangaiah, G. P., A Standalone operator training simulator for biodiesel production from waste cooking oil, APCCChE 2015 Congress incorporating **Chemeca 2015, Melbourne, Australia**, September 27 - October1, 2015.
 10. **Patle, D. S.**, Ahmad, Z., Rangaiah, G. P., "Biodiesel production from waste cooking oil: plant-wide control system design using integrated framework approach", **5th International Symposium on Advanced Control of Industrial Processes, Hiroshima, Japan**, May 28-30, 2014.
 11. **Patle, D. S.**, Ahmad, Z., "Training simulator development for palm oil based biodiesel production plant", Proceedings of the 6th International Conference on Process Systems Engineering (**PSE ASIA**), **Kuala Lumpur, Malaysia**, June 25-27, 2013.
 12. **Patle, D. S.**, Ahmad, Z., "Simulation, cost and energy analysis of eco-friendly biodiesel production plant", International Conference on Environment 2012 (**ICENV 2012**), **Penang, Malaysia**, December 11-13, 2012.
 13. **Patle, D. S.**, Mohanta, H. K., "Dual composition control of binary distillation column using generic model control", **The 64 Annual Session of the Indian Institute of Chemical Engineers, Bangalore (CHEMCON – 2011)**, December 27-29, 2011.
 14. **Patle, D. S.**, Mohanta, H. K., "Online temperature control in heat exchanger unit using GMC", The Indian chemical engineering congress-2010 (**CHEMCON – 2010**), The Department of Chemical Engineering, **Annamalai University**, December 27-29, 2010.
 15. **Patle, D. S.**, Singhanian, A., Mohanta, H. K., "Composition control of binary distillation column using GMC-ASE control scheme", **The 5th International Symposium on Design, Operation and Control of Chemical Processes** (ISBN: 978-981-08-6395-1) **Singapore**, July 25-28, 2010.
 16. Gujarathi, A.M., Patle D.S., Agarwal, P., Karemore, A., and Babu, B.V., "Simulation and analysis of ethane cracking process", The Indian chemical engineering congress-2009 (**CHEMCON – 2009**), along with the 62nd Annual Session of the Indian institute of chemical engineers, Waltair Regional Centre of the IChE and the Department of chemical engineering, Andhra university, **Visakhapatnam**, December 27-30th 2009.
 17. **Patle, D. S.**, Angira, R., "Design of GMC-ASE control scheme for nonlinear continuous stirred tank reactor", **8th world congress of chemical engineering, (WCCE8)** incorporating 58th Canadian chemical engineering conference and XXIV

interamerican congress of chemical engineering, **Montreal, Canada**, August 23-27, 2009.

18. **Patle, D. S.**, "Concentration of orange juice by membrane separation technique", **Proceeding of international conference on emerging trends in engineering**, Pravara Rural Engineering College, **Loni, India**, 20-22 December, 2008.

Guest/Invited Lecture(s)/Workshops Conducted

- Delivered an invited talk at the short term course (STC) organized by BIET Jhansi in July 2019.
- Delivered a special talk at the Faculty Development Program (FDP) organized by Harcourt Butler Technical University (HBTU) Kanpur in August 2018.
- Delivered a special talk organized by Indian Institute of Chemical Engineers (VIT Chapter) at VIT Vellore in November 2015.
- Conducted a workshop on 'Chemical Process Simulation using Aspen Plus' at VIT Vellore on September 03, 2016.

Software Skills

- Proficient in **Aspen Hysys, Aspen Plus, ASPEN Plus Dynamics, UNISIM, Matlab, .**
- Completed certificate course of **Auto Cad 2004.**
- **FORTTRAN and MATLAB.**

(Inter)national Conferences Organized

- Organizing member for an International conference 'TECHNOSCAPE 2016' at VIT Vellore held during 20-21 October 2016.
- Convener/Technical Chair for an International conference 'Energy and Environmental Technologies for Sustainable Development (**CHEM-CONFLUX²⁰**)' to be held/ held during February 14-16, 2020.
- Organizing secretary for a national conference on 'Industrial Applications of Nanoscience & Nanotechnology' to be held/ held during November 15 - 16, 2019.

Workshops/Training Attended

- Attended and passed 'Intensive Teaching Workshop' (ITW) at BITS Pilani in 2010.

Workshops/Short Term Courses Organized

- Coordinator for a five days short term course 'Industrial Applications of Heat Transfer Operations' from Oct 10-14, 2018 at MNNIT Allahabad.
- Coordinator and Treasurer for a five days short term course ' New Trends in Wastewater Treatment and its Reuse (NTWT - 2019)' from March 12-16, 2019 at MNNIT Allahabad.
- Coordinator for a one and half months summer workshop " Research Aspects in Chemical Engineering (RACE– 2019)' from May 24-July 06, 2019 at MNNIT Allahabad.

B-Tech Project Title

- Concentration of orange juice by membrane separation technique

M.E. Dissertation Title

- Application of generic model control in online temperature control in plate type heat exchanger

Ph.D. Thesis Title

- Operator training simulator using plantwide control for biodiesel production from waste cooking oil

Students Supervised (ing)**PhD**

Students Name	Guide/ Co-Guide	Title	Year
1. Aparna Gautam (2019RCL52)	Guide	Novel technique to convert UCO to FAME	From 2020
2. Gunwant Deshpande (2019RCL51)	Guide	PWC of the retrofitted chemical plants	From 2020
3. Kelani Rasheed (PJD0005/18(R)) [from USM Malaysia]	Co-Guide	Smart manufacturing of producing fame (biodiesel) from waste cooking oil (WCO)	From 2019

MTech

Students Name	Main/ Co-Guide	Title	Year
1. Ms. Rahimah Shafie (from USM Malaysia)	Co-Guide	Direct conversion of microalgal biomass into biodiesel.	From 2016
2. Avnish Gautam (2017CL01)	Guide	Algal biodiesel synthesis through direct transesterification	2019
3. Sanju Kumari (2017CL17)	Guide	Reactive extraction of (iso)nicotinic Acid and nicotinic acid from aqueous solution	2019
4. Aman Kumar (2018CL12)	Guide	EMOO of biodiesel production from microalgae	From 2019
5. Arvind Jaiswal (2018CL15)	Guide	Reactive extraction for waste water treatment	From 2019

Foreign Visits

S.N	Year	Country	Purpose
1	2010	Singapore	Attended an international conference
2	2012	Malaysia	Pursuing PhD
3	2013	Thailand	Personal visit
4	2014	Japan	Attended an international conference
5	2015	Indonesia	Attended an international conference
6	2016	Italy	Post doctoral study
7	2017	Switzerland	Personal
8	2017	France	Personal

Extra Curricular Activities

- Acted as a publicity head in First National Process Control Colloquium 2013 (NCPC 2013) organized by a process control research group, School of Chemical Engineering, Universiti Sains Malaysia.
- Represented Universiti Sains Malaysia at the university level cricket tournament organized by UKM Malaysia.
- Practice school-I instructor at Sirpur Paper Mills limited Sirpur
Duration: 25/05/2010 to 17/07/2010
- Practice school-I instructor at Mahindra and Mahindra Limited Nagpur
Duration: 22/05/2008 to 15/07/2008
- Organized on-line Entrance Test for BITS Pilani
Duration: June 2008
- Organized on-line Entrance Test for BITS Pilani
Duration: May 2009
- Member of a team, which represented the Institute (BITS Pilani) for NAAC accreditation
Duration: August 2008
- Member of Chemical Engineering Association (BITS Pilani)
Duration: August 2007 to December 2009
- Member of Academy of Chemical Engineering (JDIET Yavatmal)
Duration: July 2005 to July 2007
- Presented model at National Level Technical Meet held at Sinhgad College of Chemical Engineering, Pune, on
“Concentration of orange juice using membrane distillation”
- Presented poster at SCHEMCON 2005 held at IIT Guwahati, on
“Eradication cancer cells by nanotechnology”

Personal Details

Date of birth	October 01, 1986
Languages known	English, Marathi, Hindi and Malay
Father	Teacher
Mother	Housewife
Brother	Mechanical Engineer
Hobbies	Like to play Cricket, Snooker, Golf, Table Tennis and Carom; Reading newspapers and listening the news

I declare that the foregoing information is true to the best of my knowledge.

(Dipesh S. Patle)

