# PAWAN D. MESHRAM

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#### INDUSTRY & RESEARCH EXPERIENCE SUMMARY

May 2009- Till Date: - **Asst. Professor,** Dept. of Chemical Technology North Maharashtra technology, Jalgaon-425 001 (Maharashtra)

July 2007- May 2009:- Sulzer India Ltd., Pune as Sr. Executive in Business Development & Technology

July 2005 – March 2007:- Institute of Chemical Technology, Mumbai as

Junior Research Fellow on the project entitled, "Studies in the Application of Pervaporation in Extraction of oil seeds using Isopropanol" sponsored by TMOP&M/CSIR under the guidance of Prof. D.N. Bhowmick.

## **EDUCATIONAL QUALIFICATION**

Pursuing **Ph. D.** (Chemical Engineering), Institute of Chemical Technology (Deemed University), Mumbai under the guidance of Prof. (Dr.) S. S. Bhagwat

**M. Tech.** (Chemical Technology), Institute of Chemical Technology (formerly UDCT), Mumbai (Secured 81%, First Class with Distinction)

**B. Tech.** (Oil Technology), Laxminarayan Institute of Technology, Nagpur (Secured 76.47%, First Class with Distinction)

H.S.C., Nagpur Divisional Board (Secured 78.67%, First Class with Distinction)

S.S.C., Nagpur Divisional Board (Secured 79.47%, First Class with Distinction)

### **PUBLICATIONS**

Sr. No.	Title Of Paper	Journal	Volume, Page no.	Year
1	Synthesis and Characterization of Modified Cottonseed Oil Based Polyesteramide for Coating Applications	Progress in Organic Coatings	76,1144-1150	2013
2	High Performance Moisture Cured Poly (Ether-Urethane) Amide Coatings based on Renewable Resource - Cottonseed Oil	Journal of Coatings Technology and Research	10(3), 331-338	2013
3	Preparation and Properties of Lactic Acid- Based Modified Carboxylic Surfactant	Journal of Surface Science & Technology	28(3-4), 149-161	2012
4	Influence of Cetylpyridiniumbromide on corrosion inhibition of mild steel in sulphuric acid medium	Chemical Technology – An Indian Journal	7(2), 57-60	2012

5	Recent Developments in Smart Coatings for Corrosion Protection	Paintindia	LXIV (5), 20-25	2012
6	Laboratory Extraction of Cottonseed with Hexane -Isopropanol Hybrid Solvent System	Journal of Lipid Science and Technology	43(4), 147-152	2011
7	Epoxidation of Wild Safflower ( <i>Carthamus Oxyacantha</i> ) Oil with Peroxy Acid in Presence of Strongly Acidic Cation Exchange Resin IR-122 as Catalyst	International Journal of ChemTech Research	3(3), 1152-1163	2011
8	Synthesis & Characterization of Maleinized Linseed Oil based Disinfectant Cleanser	Journal of Surface Science & Technology	27(1-2), 111-123	2011
9	Polyaspartics: An Overview	Paintindia	LXI (2), 51-55	2011
10	Azeotropic Extraction of Cottonseed with Acidified Ternary Solvent System	Journal of Lipid Science and Technology	42(4), 140-144	2010
11	Detoxification of Defatted Sal Seed Meal	Journal of Lipid Science and Technology	40(2), 55-58	2008

# Project guidance

Lovel	Number		
Level	Awarded	Currently Registered	
B.Tech/ B.E.	24	06	
M.Tech./M.E.	10	05	
Ph.D.			

# **Sponsored research**

Sponsoring Agency	Title of Research	Period/Amount	Main or Co- investigator
MHRD , New Delhi	Adsorption Kinetics of Cr(VI) from aqueous solution by surfactant-modified biosorbent"	Ongoing/4. 0	Principal
TEQIP-II		Lacs	Investigator

## Honors received (Awards, fellowships, patents etc.)

Name of Award/Fellowship/Patent	Year
	2012
Awarded <u>First prize</u> in "Avishkar-2012" (University Level Research Festival) under Teacher category, theme area-Engineering and Technology.	2012
Bestowed with "Best Participant" award in 18 <sup>th</sup> Orientation Programme at UGC-Academic Staff College, Sant Gadge Baba Amravati University,	
Amravati (M.S.)	2010
Awarded with <u>II<sup>nd</sup> prize</u> for poster presentation at National Seminar "Recent Advances in Chemical Engineering -2010" organized by Dept. of Chem. Engg., UICT, North Maharashtra University, Jalgaon-425 001.	
➤ Received "Customer Champion" award for successful start-up and commissioning of Chlorophenol Project of Nagarjuna Agrichem Ltd., Srikakulum in 2008.	2008
➤ Received "Junior Research Fellowship" on the basis of GATE'05 (Score-187) in Chemical Engg. by Council of Scientific & industrial Research (CSIR) & Technology Mission on Oilseeds, Pulses & Maize (TMOP&M) in 2005-2007.	2005-2007
Awarded 2 <sup>nd</sup> Merit Position in B. Tech. (Oil Technology) by Nagpur University Vide Notification No. Prof.Exam./99 dated 09 Nov. 2006.	2006
Awarded with successive II <sup>nd</sup> & III <sup>rd</sup> prize for paper presentation "Cognizance'04", a National Level Technical Symposium organized by	2000
Roorkee.	2004

## FELLOWSHIP AND MEMBERSHIP OF LEARNED SOCIETIES

"Life Member"- Indian Society for Technical Education - Membership No. - LM 69363

# Participation in Conferences/ Workshops/ Seminars/ Symposia/ Courses

For academicians the participation in conferences, workshops, seminars etc. provides a forum for sharing their knowledge, experiences and research ideas for the betterment of the society and also for enrichment in the research quality.

The essential intention behind such extension activity is to bring together academicians, industrial professional and researchers from different parts of the country and scientists from abroad to exchange & share their expertise among us for the high quality research. This is anticipated to provide an in-depth analysis of subjects and update the knowledge of the participants from academic as well as research institutions.

<sup>&</sup>quot;Life Member" Oil Technologist Association of India (western zone)

- ➤ Participated in AICTE Sponsored National Seminar on" Role of Bio-energy in Sustainable Growth" (RBESG-2013) organized by Department of Chemical Engineering, MIT Academy of Engineering, Alandi (Pune) (August 30-31,2013)
- ➤ Participated in TEQIP-II Sponsored workshop on "Team Building" organized by Flagship Edumart Pvt. Ltd., Pune at UICT, NMU, Jalgaon (July 27-28, 2013)
- ➤ Participated in National Conference on "Nano-Science & Nano-Technology" organized by University Institute of Chemical Technology, North Maharashtra University, Jalgaon 425 001 (M.S.) (March 23,2013)
- ➤ Participated in UGC-SAP Sponsored III<sup>rd</sup> National Conference on "Recent Challenges in Pharmaceutical Science and Technology" organized by Department of Pharmaceutical Technology, University Institute of Chemical Technology, North Maharashtra University, Jalgaon -425 001 (M.S.) (March 16, 2013)
- ➤ Completed one week Staff Development Programme (SDP) on "Research Paper Writing" organized by National Institute of Technical Teachers' Training & Research (NITTTR), Bhopal (M.P.) (February 11-15, 2013)
- ➤ Presented a paper entitled "Investigation of Cetylpyridiniumbromide as Green Corrosion Inhibitor at Mild Steel/Sulphuric Acid Interface" at 6<sup>th</sup> Young Researchers' Conference organized by Institute of Chemical Technology, Mumbai (January 12-13, 2013)
- ➤ Participated in "Avishkar-2012-13", 7<sup>th</sup> Maharashtra State Inter University Research Convection at Dr. Balasaheb Sawant Konkan krishi Vidyapeeth, Dapoli, Ratnagiri (M.S.) (January 7-9, 2013)

### 2012

- Attended UGC sponsored 18<sup>th</sup> Orientation Program during September 24, 2012 to October 22, 2012 organized by UGC-Academic Staff College, Sant Gadge Baba Amravati University (M.S.)
- ➤ Participated in UGC-SAP Sponsored II<sup>nd</sup> National Conference on "Recent Challenges in Pharmaceutical Science and Technology" organized by Department of Pharmaceutical Technology, University Institute of Chemical Technology, North Maharashtra University, Jalgaon -425 001 (M.S.) (March 28, 2012)
- ➤ Presented a paper entitled "Enzymatic Transesterification of Epoxidized Wild Safflower (Carthamus Oxyacantha) Oil" at National Conference on "Biotechnology Advances" organized by Department of biotechnology, College of engineering & Technology, Bambhori, Jalgaon (M.S.) (March 16, 2012)
- ➤ Participated in National Symposium "Surfocorrenza-2012" organized by Department of Surface Coating technology, Laxminarayan Institute of Technology, Nagpur (M.S.) (February 26, 2012)
- ➤ Presented a paper entitled "Renewable Resource based Polyurethane Coating from vegetable oil" at National Conference on "Nano-Materials, Industrial Polymer & Ecofriendly Coatings-Perspective and Challenges" (NIPEC-2012) organized by School of

Chemical Sciences, North Maharashtra University, Jalgaon -425 001 (M.S.) (February 18, 2012)

- ➤ Participated in ICTMM workshop on "Molecular Modelling" Organized by UGC Networking Resource centre, Department of Chemical Engineering, Institute of Chemical Technology, Mumbai (January 28, 2012- February 01, 2012)
- ➤ Presented a paper entitled "Green Alternative: Vegetable oil based Binders for coating Application" at UGC- sponsored National Conference on "Environmental Surveillance for Natural Resource Management" (ESNRM-2012) organized by School of Environmental and Earth Science, North Maharashtra University, Jalgaon -425 001 (M.S.) (January 10, 2012)
- ➤ Presented a paper entitled "ULSD: A Future Potential Petrochemical in Green Chemistry" at UGC- sponsored National Conference on "Recent Advances in Chemical Engineering" (RACE-2012) organized by Department of Chemical Engineering, University Institute of Chemical Technology, North Maharashtra University, Jalgaon -425 001 (M.S.) (January 04, 2012)

#### 2011

- ➤ Participated in National Level celebration of "International Year of Chemistry (IYC-2011)" organized by School of Chemical Sciences, North Maharashtra University, Jalgaon -425 001 (M.S.) (December 26, 2011)
- ➤ Participated and successfully completed one week National Workshop cum Training on "Chemical Engineering Laboratory" organized by UGC Networking Resource Centre, Department of Chemical Engineering, Institute of Chemical Technology, Mumbai (September 28- October 02, 2011)
- Attended AICTE Sponsored Staff Development Program on "Recent Advances in Polymer Technology" organized by University Institute of Chemical Technology, North Maharashtra University, Jalgaon-425 001 (M.S.) (June 15-30, 2011)
- ➤ Presented a paper entitled "Probiotic Food: A Review" at National Conference on "Recent Advances in Agro-biotechnology for Sustainable Agricultural Practices" organized by Department of Biotechnology, M. J. College, Jalgaon-425 001 (M.S.) (February 5-6, 2011)
- ➤ Participated in National Workshop on "Process Intensification of Chemical Processing Applications" organized by UGC Networking Resource Centre, Department of Chemical Engineering, Institute of Chemical Technology, Mumbai (January 28-30, 2011)
- ➤ Presented a paper entitled "Smart Polymeric Seed Coatings for Delayed Germination and Seed Protection" at UGC-Sponsored National Conference on "Environmental Innovations for Resource Sustainability" organized by School of Environmental and Earth Science, North Maharashtra University, Jalgaon -425 001 (M.S.) (January 21-22, 2011)

### 2010

- ➤ Participated in Third National Conference on "Recent Advances in polymer Technology" (RAPT-2010) organized by University Institute of Chemical Technology, North Maharashtra University, Jalgaon-425 001 (M.S.) (December 28-29, 2010)
- ➤ Completed one week Staff Development Programme (SDP) on "Bio-Diesel" organized by National Institute of Technical Teachers' Training & Research (NITTTR), Bhopal (M.P.) (June 21-25, 2010)
- ➤ Presented a paper entitled "Advanced Pervaporation Process for Dehydration of IPAWA & IPA-Water Mixtures through PVA-Sodium Alginate Blend Membrane" at National Seminar on "Recent Advances in Chemical Engineering" (RACE-2012) organized by Department of Chemical Engineering, University Institute of Chemical Technology, North Maharashtra University, Jalgaon -425 001 (M.S.) (March 20, 2010)
- ➤ Completed AICTE-Sponsored Short Term Training Programme (STTP) on "Anaerobic Digestion of Wastewater" organized by Department of Chemical Engineering, SVNIT, Surat (Gujrat) (February 22-26, 2010)
- ➤ Presented a paper entitled "Recovery of Potential Therapeutic value Gossypol from Cottonseed Soapstock" at National Conference on "Natural Resources Management for Sustainable Development" (NRMSD-2010) organized By School of Environmental and Earth Sciences, North Maharashtra University, Jalgaon (M.S.) (February 1-2, 2010)
- ➤ Presented papers entitled "Respirpocytes: Respire through Nanomachines" & "Application of Nanotechnology in Food Industry" at AICTE-Sponsored National Conference on "Nanomaterials & Nanotechnology" organized by Visvesvaraya National Institute of Technology (VNIT), Nagpur (M.S.) (January 18-20, 2010)
- ➤ Presented a paper entitled "Production of Biodiesel from Rice bran oil using soluble silicates" at 3<sup>rd</sup> Young Researchers' Conference organized by Institute of Chemical Technology, Mumbai (January 15-16, 2010)

#### 2009

- ➤ Participated in the Second National Conference on "Recent Advances in polymer Technology" (RAPT-2009) organized by University Institute of Chemical Technology, North Maharashtra University, Jalgaon-425 001 (M.S.) (December 28-29, 2009)
- ➤ Participated and successfully completed National Workshop on "Recent advances on wastewater treatment" organized by UGC Networking Resource Centre, Department of Chemical Engineering, Institute of Chemical Technology, Mumbai (December 16-17, 2009)

# Organizing Conferences/ Workshops/Seminars/Symposia

Convener- MHRD, New Delhi TEQIP-II Sponsored National Workshop on "Emerging Trends in Oleo-chemicals and Ecofriendly Coatings Technologies" (ETOECT-2013) held on 28<sup>th</sup> September 2013 organized by Department of Oils Technology and Department of Paints Technology, University Institute of Chemical Technology, North Maharashtra University, Jalgaon-425 001 (M.S.)

Academic Highlights of the Conference -The evolving field of Oleo-chemicals and Ecofriendly Coatings Technologies is an important field that is likely to play fundamental roles in the full spectrum of other Technology disciplines. The conference was organized to have deliberations/interactions among the researchers, academicians and students relating to the emerging trends in oleochemical and coating industries. The use of agricultural based renewable sources for oleochemical synthesis was of prominent importance to the conference. The different topics covering green & sustainability as a core theme was presented by invited speakers from IIT, Delhi; ICT, Mumbai; Asian Paints, Mumbai; SACE, Wardha etc. The modification of vegetable oils to meet the functional products demand was put forward as potential substitutes due to their renewability, versatility and biodegradability.

Overall, 180 delegates attended the conference and 46 poster presentations were evaluated by judges. The first two best posters from UG and PG category were awarded with winning trophy to inculcate the research culture among the young students.

➤ Organizing Secretary- MHRD, New Delhi TEQIP-II Sponsored National Seminar on "Recent Advances in Foods and Fermentation Technology" (RAFFT-2013) September 25, 2013 held on 25<sup>th</sup> September 2013 organized by Department of Food Technology, University Institute of Chemical Technology, North Maharashtra University, Jalgaon-425 001 (M.S.)

Academic Highlights of the Seminar — The Seminar was sponsored by TEQIP-II with the objective to discuss the challenges, opportunities and future prospects on application of fermentation technology in developing countries like India. However, the seminar was organized to accommodate a wide variety of the interested topics related to food quality & safety, food processing & preservation, food nutrition and food packaging etc. The importance of the value addition in the food chain from agricultural production to the consumers was focused with the aim to identify the technological gaps and promote the research culture into young generation. The invited speaker came from the institutes such as IIT, Kharagpur; NIFTEM, Haryana; Krishna Pectin Pvt. Ltd., Jalgaon has pointed out the need for research based-development in the field of benefits of fermented food consumption and improvement in food safety. In all 150 participants attended the seminar and 52 posters were presented.

> Organizing Secretary- UGC Sponsored one week National Workshop on "Food and Oil Safety & Quality Systems" (FOSQS-2012), during March 12-16, 2012 organized by

# Department of Food Technology and Department of Oils Technology, University Institute of Chemical Technology, North Maharashtra University, Jalgaon-425 001 (M.S.)

Academic Highlights of the Workshop - The workshop was designed comprehensively to cover various aspects of food and oil safety and quality systems. The emphasis was given on the recent food and oil industry safety system like HACCP, Good House Keeping (GHK), Good Manufacturing Practise (GMP) and Good Laboratory Practices (GLP) inclusive of ISO-Quality Management Systems. Workshop was comprised of theory lectures by the eminent professors from CFTRI Mysore, ICT (Mumbai), HBTI Kanpur and other premium Institute, experts from Industry and consultants of the HACCP/ISO. The practical demonstration of the HACCP system in the form of Industrial tour was also undertaken. The speaker from institutes such as IIT, Roorkee; IIT, Kharagpur; CFTRI, Mysore; ICT, Mumbai; BAMU, Aurangabad and industrial experts from Marico Industries, Mumbai; Kamani Oil Industries Pvt. Ltd., Mumbai; ITC, Bangalore along with Food Processing Consultant and Intellectual Property Rights (IPR) professionals has delivered their talks among the delegated. In total 55 faculties and research scholars has participated in the workshop.

> Organizing Secretary- UGC Sponsored National Conference on "Recent Innovations in Oil & Food Technology" (RIOFT-2010) held on August 23, 2010 organized by Department of Oils Technology and Department of Food Technology, University Institute of Chemical Technology, North Maharashtra University, Jalgaon-425 001 (M.S.)

Academic Highlights of the Conference - The spate of recent concerns on nutritional and environmental issues demand timely initiatives in terms of adoption of latest business models and state of the art technologies for achieving excellence in the field of Oils, Fats and Foods. The topic of the conference was chosen to address the many aspects of food & lipid science consisting of emerging trends in processing of foods & oils, biotechnological application for oleochemical preparation, byproducts upgradation, functional foods and neutraceuticals, nutrition and toxicology etc.

The conference has received the overwhelming response in terms of 196 participation from the corners of the country. Overall 24 oral presentations in four parallel sessions were conducted and a separate poster presentation session consisting of 114 posters was evaluated categorically. In oral presentation session 2 prizes were honored for best paper presentations while 2 prizes each in UG and PG poster presentation category was awarded to motivate the young researchers.

The resource persons were invited from reputed technology institutions such as ICT, Mumbai; IICT, Hyderabad; IIT, Delhi; HBTI, Kanpur; LIT, Nagpur etc. The deliberations by experts focused on boosting the technical competence and professional skills of participants to reduce the processing costs, enhance the quality of products and at the same time conserve resources and meet the challenges of environment and food security.

On the behalf of organizing committee I humbly express my sincere gratitude to Hon'ble Shri. Kapil Sibbal (Human Resource Development Minister, Government of India) for his best wishes for the successful organization of the conference.

# PERSONNEL DETAILS: - Gender - Male

Date of Birth - November 6, 1983

Marital Status - Married