

## Profile Page



Name : Dr Deepak Sahu

Designation : Assistant Professor Grade-i

Department : Chemical Engineering

Qualification : PhD Chemical Engineering (IIT Roorkee)  
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B.E Chemical Engineering (Jiwaji University, Gwalior)

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### Research Interests :

Environment Engineering, Wastewater treatment, Waste to energy, Biomass conversion process, Solid waste Management, Risk Assessment, Fire Dynamics, Fire Retardant Materials, Chemical Process Safety, Modelling and Simulation, CFD, Artificial Intelligence/Machine Learning Techniques, Nanotechnology

### Other Profile Links :

#### Google Scholar Link :

Dr Deepak Sahu [Click Here](#)

#### Personal Web Link :

Vidwan [Click Here](#)

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Web of Science [Click Here](#)

### Journal Publications :

Year	Journal	Publication
2023	Journal of the Brazilian Society of Mechanical Sciences and Engineering.	Deepak Sahu, Shorab Jain, Bhisham Kumar Dhurandher, Akhilesh Gupta, Surendra Kumar. An Effect of Ventilation on Development of Thermal and Toxic Environment in Cubical Enclosure Fires
2022	International Journal of System Assurance Engineering and Management	Deepak Sahu, Anchal Bahman, Bhisham Kumar Dhurandher, Amit Rai, Ravikant R Gupta. Numerical studies on fire development inside the corridor. International Journal of System Assurance Engineering and Management
2022	Materials Today: Proceedings	Abhiraj Singh, Deepak Sahu, Om Prakash Verma. Study on performance of working model of heat exchangers.

2022	Results in Control and Optimization, 8, 2022 pp 100137	Drishti Yadav, Nikhil Pachauri, Om Prakash Verma, Deepak Sahu, Jatinder Kumar Ratan, Tarun Kumar Sharma.
2022	Journal of Indian Pulp and Paper Technical Association, 2021. Vol 33, No 03.	4. Smitarani Patil , Om Prakash Verma , Deepak Sahu , Surendra Pratap Singh , Nishant Nilekar ,Kapil Kumar Goyal.Energy analysis of multiple effect evaporator in Pulp and Paper Industry.
2020	Journal of the Indian Chemical Society	Deepak Sahu, Shorab Jain, Akhilesh Gupta, Surendra Kumar. Effects of different fuel on development of fire inside the compartment.
2019	Fire Safety Journal, Vol 109, 102858	Deepak Sahu, Shorab Jain, Akhilesh Gupta, Surendra Kumar. "Experimental studies on different liquid pool fires inside the compartment".
2017	Building Simulation, Vol. 10, 351-364	Deepak Sahu, Shashi Kumar, Shorab Jain, Akhilesh Gupta, "Full scale experimental and numerical studies on effect of ventilation in an enclosure diesel pool fire"
2016	Fire and Materials, Vol. 40, 1016-1035	Deepak Sahu, Shashi Kumar, Shorab Jain, Akhilesh Gupta "Experimental and numerical simulation studies on diesel pool fire"
2015	Procedia Earth and Planetary Science, Vol 11, 507-515	Deepak Sahu , Shorab Jain, Shashi, Akhilesh Gupta "Experimental study on methanol pool fires under low ventilated compartment"

### Conference Publications :

Year	Conference	Publication
2022	CHEM-CONFLUX, April 14-16, 2022. Motilal Nehru National Institute of Technology, Allahabad, Prayagraj, India	Anchal Bahman, Deepak Sahu. Safety Analysis Techniques Used in Process Industries. International Conference on Technological Interventions for Sustainability
2021	2nd International Conference On Chemical, Bio & Environmental Engineering (CHEMBIOEN-2021) August 20-22, 2021. Dr B R Ambedkar National Institute of Technology, Jalandhar.	Atul Singh Rana, Deepak Sahu. Individual and societal risks in industrial hazards/accidents. Individual and societal risks in industrial hazards/accidents.
2021	2nd International Conference On Chemical, Bio & Environmental Engineering (CHEMBIOEN-2021) August 20-22, 2021. Dr B R Ambedkar National Institute of Technology, Jalandhar	Kanchan, Deepak Sahu. Process intensification for heat exchanger. 2nd International Conference On Chemical, Bio & Environmental Engineering (CHEMBIOEN-2021)
2021	National Conference on A Recent Trends in Fluid Dynamics Research (RTFDR-21) April 2-4, 2021. NIT Rourkela	Shagun Agarwal, Kanchan, Deepak Sahu, Ravikant R Gupta. Study of heat distribution in the room during fires
2021	National Conference Sustainable Research in Energy and Environment (SREE-2021), Dr B R Ambedkar National Institute of Technology Jalandhar, 15-16 Jan 2021,	Ritu Sharma, Deepak Sahu. A review on progress of fire sprinkler system, National Conference Sustainable Research in Energy and Environment (SREE-2021),
2021	National Conference Sustainable Research in Energy and Environment (SREE-2021), Dr B R Ambedkar National Institute of Technology Jalandhar, 15-16 Jan 2021	Ravikant R Gupta, Richa Agarwal, Deepak Sahu. Modeling and Simulation Multi component condensation process.
2020	International conference on "Advances in Chemical Engineering-2020 (AdChE-2020), University of Energy and petroleum Studies (UPES) Dehradun, February 5-7, 2020.	Ankita Sharma, Deepak Sahu, A. K. Tiwari. Effect of shear-thinning fluid in Y-channel
2020	International Conference on Chemical, Bio & Environmental Engineering (CHEMBIOEN-2020), NIT Jalandhar, February 13-14, 2020	Ankita Sharma, Deepak Sahu, A. K. Tiwari. Creeping flow of a Bingham Plastic fluid past a Rectangular Cylinder

2020	International Conference on Chemical, Bio & Environmental Engineering (CHEMBIOEN-2020), Department of Chemical Engineering, Dr B R Ambedkar National Institute of Technology, Jalandhar, February 13-14, 2020	Gaurav Vinayak, Pragya Sharma, Deepak Sahu. Effects of fuel location in a confined enclosure.
2020	International Conference on Chemical, Bio & Environmental Engineering (CHEMBIOEN-2020), Department of Chemical Engineering, Dr B R Ambedkar National Institute of Technology, Jalandhar February 13-14, 2020	Arpit Jain, Banoth Abhsihek Nayak, Deepak Sahu. Effects of ventilation on fire behavior inside the confined enclosure.
2019	International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2019)15-16 Feb, 2019, NIT Warangal, India	Deepak Sahu, Jaspreet Chawla, Sangeeta Garg. Numerical studies on fire behavior inside the confined area
2019	4th World congress on disaster management, Jointly organized by Govt. of Maharashtra , DMICS, TISS, IIT Bombay - India	Deepak Sahu Jaspreet Chawla, Sangeeta Garg. Numerical studies on development of fires inside the large size enclosure.
2019	International conference on Energy and Environment: Challenges and Opportunities for industries (ICEE-2019), MNIT Jaipur, 28-29 Dec 2019.	Ankita Sharma, Deepak Sahu, A. K. Tiwari, Natural Convection heat transfer from the heated rectangular cylinder in quiescent shear-thinning fluid: effect of orientation.
2018	71th Annual Session of Indian Institute of Chemical Engineers CHEMCON-2018	Deepak Sahu, Shorab Jain, Akhilesh Gupta, Surendra Kumar. Numerical simulation of diesel pool fire inside the enclosure.
2018	71th Annual Session of Indian Institute of Chemical Engineers CHEMCON-2018	Deepak Sahu, Jaspreet Chawla, Sangeeta Garg. Numerical Studies on effects of ventilation in enclosure fires.
2017	Recent Trends In Chemical Sciences & Engineering (RTCSE, 2017) Organized by Department of Chemical Engineering, National Institute of Technology Hamirpur (H.P.), October 13-14, 2017	Harshit Sharma, Sahil Rathore, Deepak Sahu, "A Review Study of Fire Occurrences in Open Environment"
2017	Recent Trends In Chemical Sciences & Engineering (RTCSE- 2017) organized by Department of Chemical Engineering, National Institute of Technology Hamirpur (H.P.) & October 13-14, 2017	Vasu Nath Mehta, Deepak Sahu "An overview of Fire Dynamics inside the Compartment"
2014	Conference on "Fire Research and Engineering" organized by Department of Mechanical and Industrial Engg., IIT Roorkee, Uttarakhand – India, March 1-2 , 2014	Sahu et al., "Experimental Studies on Propane Pool Fire Inside the Compartment"
2013	International Conference on Advances in Chemical Engg. (ACE-2013) organized by Department of Chemical Engg., IIT Roorkee, Uttarakhand – India, February 22-24 , 2013	Sahu et al., "Experimental Studies and Numerical Simulation of Hydrocarbon Pool Fires"
2013	International Conference on Challenges in Disaster Mitigation and Management Strategies Organized by IIT Roorkee, Uttarakhand-India, February 15-17, 2013	Sahu et al., "Compartment Fires: An Experimental Study"

### Book/Chapter Publications :

Type	Title	Publisher	Authors	ISBN/ISS N No.	Year
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Book Chapter	Minimization of Trim Loss During Reel Cutting at Paper Mill by Using Different Optimization Algorithms.	Springer	Manish Srivastava, Smitarani Pati, Om Prakash Verma, Tarun Kumar Sharma, Himanshu Gupta, Raj Kumar Arya, Anurag Kumar Tiwari & Deepak Sahu.	ISBN: 978-981-19-2188-9	2022
Book Chapter	Analysis of Fire and Explosion Hazard of LPG tanker truck accident: A case study	Springer (eBook ISBN 978-3-030-96554-9)	Aditya Paliwal, Aayush Ajay Desai, Deepak Sahu, Bhisham Kumar Dhurandher	ISBN 978-3-030-96554-9	2022
Book Chapter	Incident heat flux measurements with efficient plate thermometer in the fire test environment	Springer	Shagun Agarwal, Deepak Sahu, Bhisham Kumar Dhurandher Anchal Bahman, Jatinder Kumar Ratan, Kanchan, Nitin Naresh Pandhare, Om Prakash Verma	978-3-030-96554-9	2022
Book	Advances in Chemical, Bio and Environmental Engineering	Springer	Jatinder Kumar Ratan, Deepak Sahu, Nitin Naresh Pandhare, Anjireddy Bhavanam	978-3-030-96554-9	2022
Book Chapter	Numerical studies on methanol pool fire inside the enclosure	Lecture Notes in Mechanical Engineering (LNME) Springer In Press	Deepak Sahu, Shorab Jain, Akhilesh Gupta, Surendra Kumar	978-981-16-0942-8	2021
Book Chapter	Investigation of methanol fuel fires inside the enclosure	Taylor and Francis (In Press)	Deepak Sahu, Shorab Jain, Akhilesh Gupta, Surendra Kumar	9781003202240	2021
Book Chapter	Experimental Studies on Propane Pool Fire Inside the Compartment	Narosa Publishing House Pvt. Ltd	Deepak Sahu, Shashi, Akhilesh Gupta, Shorab Jain, Ravi Kumar, A K Gupta, Surendra Kumar, Pawan K Sharma	978-81-8487-395-5	2015

## Research Projects :

Role	Project Type	Title	Funding Agency	From	To	Amount	Status	Co-Investigator
Investigator	Research project	Experimental studies on fire behavior inside the confined area	TEQIP III	2018	2019	37000	completed	Dr. Sangeeta Garg
Investigator	Research project	Catalytic Co-pyrolysis studies of biomass and plastics in producing bio-fuels and value added products	TEQIP III	2018	2020	200000	ongoing	Dr. AnjiReddy Bhavanam
Investigator	Consultancy project	Evaluation of Evaporation Rate of Mist Evaporator	LBPL	2022	2023	2.65 Lakh	Ongoing	Dr. JK Ratan

### Events Organized :

Category	Type	Title	Venue	From	To	Designation
Conference	National	"Recent Trends in Chemical Sciences & Engineering"	Department of Chemical Engineering, National Institute of Technology Hamirpur (H.P.)	13/10/2017	14/10/2017	Joint Secretary
STC	National	Catalysis	Jointly organized by Department of Chemical Engineering, NIT Jalandhar and Department of Humanities and Sciences (Chemistry), Government Women Engineering College Ajmer, Rajasthan	10/08/2019	14/08/2019	Coordinator
Conference	International	International Conference on "Chemical, Bio & Environmental Engineering"	Department of Chemical Engineering, NIT Jalandhar	13/02/2020	14/02/2020	Joint Secretary
STC	National	Process Modeling, Simulation, Control and Optimization (PMSCO-2020)	NIT Jalandhar	16/09/2020	20/09/2020	Coordinator

Conference	International	2nd of International Congress on Advances in Mechanical and System Engineering	NIT Jalandhar	17/07/21	19/07/21	Secretary
Conference	International	Chemical, Bio & Environmental Engineering (CHEMBIOEN21)	NIT Jalandhar	20/08/21	22/08/21	Secretary

### PG Dissertation Guided :

Student Name	Dissertation Title	Status	Year	Co-Supervisor
ANKITA SHARMA	Fluid Flow and Heat transfer Characteristics from Rectangular cylinder in Non-Newtonian Fluids	Submitted	2020	Dr. Anurag Kumar Tiwari
Jaspreet Chawla	Numerical Studies of Fire Behaviour inside the Enclosure	Completed	2019	Dr. Sangeeta Garg

### Admin. Responsibilities :

Position Held	Organization	From	To
Treasurer of North Indian Chapter of Indian Chemical Society	Indian Chemical Society		
Treasurer of North Indian Chapter of Indian Chemical Society	Indian Chemical Society	March 2020	Till