

Profile Page



Name : Dr Mahesh Patel

Designation : Assistant Professor Grade-i

Department : Civil Engineering

Qualification : PhD Experimental Hydraulics (IIT Guwahati)
M Tech Water Resources Engineering (IIT Guwahati)
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B.E. Civil Engineering (Samrat Ashok Technological Institute
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Research Interests :

Turbulent fluvial flows, bedform dynamics, flow resistance, bed morphology, the evolution of sheet flow, seepage in alluvial channels, environmental hydraulics, and hyporheic flow over fixed bedforms.

Other Profile Links :

Google Scholar Link :

Mahesh Patel [Click Here](#)

Personal Web Link :

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RESEARCHER ID [Click Here](#)

ORCID ID [Click Here](#)

Journal Publications :

Year	Journal	Publication
2023	Journal of Soft Computing in Civil Engineering	Sifti Wadhawan; Akshita Bassi; Rajwinder Singh; Mahesh Patel. "Prediction of Compressive Strength for Fly Ash-Based Concrete: Critical Comparison of Machine Learning Algorithms". Volume 7 (3), 68-110
2022	International Journal of Environmental Science and Technology, Springer Nature	Rajwinder Singh and Mahesh Patel, "Strength and durability performance of rice straw ash based concrete: an approach for the valorization of agriculture waste"

2022	Journal of Material Cycles and Waste Management, Springer Nature	Ajaz Ahmad Mir, Jasir Mushtaq, Abdul Qayoom Dar, Mahesh Patel, "A quantitative investigation of methane gas and solid waste management in mountainous Srinagar city?A case study",
2022	Biomass and Bioenergy, Elsevier, Vol (159C)	Rajwinder Singh, Mahesh Patel "Effective utilization of rice straw in value-added by-products: A systematic review of state of art and future perspectives"
2021	Bulgarian Chemical Communications, Vol 53, Issue D	Ayushi Gupta, Mahesh Patel and Rajwinder Singh "Influence of the excessive use of fertilizer on the soil attributes: A case study"
2019	ISH Journal of Hydraulic Engineering, Taylor & Francis, 1-8	Jyotisma Taye, Jyotirmoy Barman, Mahesh Patel, and Bimlesh Kumar, "Turbulent Characteristics of Sinuous River Bend"
2017	Earth Surface Processes and Landforms, Wiley	Mahesh Patel, Shantanaba Majumder and Bimlesh Kumar, 'Effect of seepage on flow and bedforms dynamics'
2017	CATENA, Elsevier, 158(1), 219-234	Mahesh Patel and Bimlesh Kumar, 'Flow and bedform dynamics in an alluvial channel with downward seepage'
2017	Canadian Journal of Civil Engineering, 1-12	Mahesh Patel, Shantanaba Majumder, and Bimlesh Kumar, 'Statistical description of morphological characteristics of bedforms in seepage affected alluvial channels'
2015	Geomorphology, Elsevier, 248(1), 161-171	Mahesh Patel, Vishal Deshpande and Bimlesh Kumar, 'Turbulent characteristics and evolution of sheet flow in an alluvial channel with downward seepage'
2015	ISH Journal of Hydraulic Engineering, Taylor & Francis, 21(3), 333-342	Anurag Sharma, Mahesh Patel and Bimlesh Kumar, 'Turbulent parameters and corresponding sediment transport in curved cross-section channel'
2015	Journal of Indian Water Works Association, 47 (1)	Anurag Sharma, Mahesh Patel and Bimlesh Kumar, 'Performance appraisal of velocity predictors in channel flow'

Conference Publications :

Year	Conference	Publication
2021	International Chemical Engineering Conference 2021 - 100 Glorious Years of Chemical Engineering & Technology, organized by Department of Chemical Engineering, NIT Jalandhar	Ayushi Gupta, Mahesh Patel, Rajwinder Singh. Influence of the excessive use of fertilizer on the soil attributes: A case study
2021	International Conference on Transportation Systems Engineering and Management, 26-27 August, NIT Calicut, India.	Mayank Pathak, Rajiv Kumar, Mahesh Patel. A Comprehensive Review of Various Wastes to Modify the Index and Engineering Properties of Subgrade Soils.
2021	International Conference on Recent Development on Materials, Reliability, Safety and Environmental Issues, 25-27 June, NIT Jalandhar, India.	Mayank Pathak, Rajiv Kumar, Mahesh Patel. Stabilization of Soil by Using Locally Available Stabilizing Agent.
2021	International Conference on Advances in Structural Mechanics and Applications (ASMA-2021), 29-31 May, NIT Silchar, India.	Mayank Pathak, Vinod Kumar Sharma, Rajiv Kumar, Mahesh Patel. A Review of Soil Stabilization Using Resilient Modulus.
2021	International Conference. On. Advances in Chemical, Biological and Environmental. Engineering (ICACBEE-2021) April 23-24, NIT Jaipur, India.	Yaksh Kakkar, Rajwinder Singh, Mahesh Patel. Application of Industrial and Agricultural Wastes in Clay-Based Bricks: A Review.
2021	International Conference on Recent Innovation in Cleaner Technologies (RICT-2021), 8-9 March, NIT Jaipur, India.	Mayank Pathak, Vaibhav Chaturvedi, Neha Chaturvedi, Jagpreet Singh Kamboj, Agrima Shukla, Ravi Pratap Singh, Mahesh Patel. Assessment of Air Pollutant Levels during Lockdown in Early phase of COVID-19 pandemic in India.

2021	International Conference on Materials and Technologies (MaterialTech 21), 9-10 January 2021, NIT Raipur, India.	Pushpendra Singh, Mayank Pathak, Vaibhav Chaturvedi, M Abdul Akbar, Rajiv Kumar, Mahesh Patel. Utilization of waste glass as partial replacement of fine Aggregate in manufacturing of concrete.
2020	3rd International Conference on Innovative Technologies for Clean and Sustainable Development, NITTTR Chandigarh, 19 - 21th Feb	Rajwinder Singh, Vaibhav Chatuvedi, Ankit Kumar, Mahesh Patel. "Utilization of industrial wastes in concrete mixes - A review".
2020	ACE-2020 International Conference on Advances in Civil Engineering, 5-7 Nov 2020, VNIT Nagpur, Maharashtra, India	Rajwinder Singh, Mahesh Patel, Karanvir Singh Sohal. The potential use of waste paper sludge for sustainable production of concrete – A review
2020	International Congress Sustainable Development through Engineering Innovations (SDEI), September 17 – 19, Guru Nanak Dev Engineering College, Ludhiana, Punjab. (Scopus Indexed)	Rajwinder Singh, Karanvir Singh Sohal, Mahesh Patel. Utilization of Copper Slag as A Sustainable Building Material.
2020	International Conference on Sustainability and Equity Digital Society, 23-25 November, KIIT Bhubaneswar, India.	Vaibhav Chaturvedi, Tmana Mahajan, Mayank, Jagpreet Singh Kamboj, Mahesh Patel. Sponge City - A Review To Urban Water Management.
2020	Proceedings of the 22nd IAHR-APD Congress, 15-16th September, Sapporo, Japan.	Anurag Sharma, Mahesh Patel, and Bimlesh Kumar. Effect of sheet layer on the flow characteristics in an alluvial channel.
2020	Proceedings of the 22nd IAHR-APD Congress, 15-16th September, Sapporo, Japan.	Mahesh Patel, Bimlesh Kumar and Anurag Sharma. Impact of downward seepage on plane bed alluvial channels.
2020	52nd ANNUAL CONVENTION 2020, 10-12th Jan, NIT Patna, India.	Mahesh Patel, Thiyan Tamphasana, Bimlesh Kumar, Sahibpreet Singh. Design of Economic Diameter of the Major Pipe Line: A Case Study.
2020	52nd ANNUAL CONVENTION 2020, 10-12th Jan 2020, NIT Patna, India.	Sahibpreet Singh, Dinesh Saini, Jagpreet Singh Kamboj, Harsh Deep, Kamal Mali, and Mahesh Patel. Improvement of the Ground Water Level Using Rainwater Harvesting System: A Case Study.
2019	National Conference on Advances in Chemical and Environmental Engineering (ACEE 19), NIT Jalandhar, 23-24th March	Tanvi Singh, Mahesh Patel and Karan Behal. "Removal of Benzene and Toluene using Bacterial Bio-filter".
2018	National Conference on Advanced Structures, Materials and Methodology in Civil Engineering ASMMCE 2018 3rd - 4th November 2018, NIT Jalandhar	Smriti and Mahesh Patel "Investigating the Impact of Land Use and Land Cover Changes in Regions of Punjab: A Review" (Best Paper Award)
2016	20th Congress of the Asia Pacific Division of the International Association for Hydro Environment Engineering and Research held in Colombo, Sri Lanka	Mahesh Patel, Vishal Deshpande, and Bimlesh Kumar, 'Resistance to flow in an alluvial channel subjected to seepage'
2016	4th IAHR Europe Congress, Liege Belgium	Mahesh Patel, Vishal Deshpande and Bimlesh Kumar, 'Effect of seepage on the friction factor in an alluvial channel'
2015	36th IAHR World Congress 2015 held in The Hague, Netherlands	Anurag Sharma, Mahesh Patel, and Bimlesh Kumar, 'Turbulence in curvilinear bed streams'
2014	International Conference on Soft Computing for Problem Solving, NIT Silchar, India	Jaideep Sehrawat, Mahesh Patel, and Bimlesh Kumar, 'Gaussian process regression to predict incipient motion of alluvial channel'
2014	National conference on Water and its Sustainability in Mining and Other Environment: VISION 2050, ISM Dhanbad, India	Mahesh Patel, Sainath Panigrahi, and Bimlesh Kumar, 'Dam break analysis: case studies of Bettakumbri and Hongadhalla dam'

2013	International Conference on Climate Change, Water Resources and Disasters in Mountainous Regions: Building Resilience to Changing Climate, SOHAM, Kathmandu, Nepal	Vishal Deshpande, Mahesh Patel, and Bimlesh Kumar, 'Spatio-temporal variation of critical parameters in threshold channel'
2013	International Conference on Sustainable Innovative Techniques in Civil and Environmental Engineering, JNU Delhi, India	Mahesh Patel and Bimlesh Kumar, 'Resistance predictor with bedforms in alluvial channel'
2012	International Conference on Environmentally Sustainable Urban Ecosystems, IIT Guwahati, India	Mahesh Patel, Sumit Talukdar, Vishal Deshpande, and Bimlesh Kumar, 'Use of large tilting flume to characterize the sediment movement in alluvial stream'

Book/Chapter Publications :

Type	Title	Publisher	Authors	ISBN/ISS N No.	Year
Book Chapter	The potential use of waste paper sludge for sustainable production of concrete – A review	Springer Nature	Rajwinder Singh, Mahesh Patel and Karanvir Singh Sohal	ISBN 978-981-16-4396-5	2021
Book Chapter	Utilization of industrial wastes in concrete mixes - A review	Springer Nature	Rajwinder Singh, Vaibhav Chaturvedi, Ankit Kumar, Mahesh Patel	978-3-030-51484-6	2020
Book Chapter	Enhancing the Properties of Recycled Aggregate Concrete Using Beneficiation Technique	Springer International Publishing	Ram Lal Riyar, Kanish Kapoor, Mahesh Patel, and S. P. Singh	978-3-030-51353-5	2020
Book Chapter	Sustainable Hydraulics in the Era of Global Change / Effect of seepage on the friction factor in an alluvial channel	Taylor & Francis Group, CRC Press London	Mahesh Patel, Vishal Deshpande and Bimlesh Kumar	978-1-138-02977-4	2017
Book Chapter	Development of Water Resources In India / Turbulent Scale Measurement in Mobile Bed channel	Springer	Anurag Sharma, Dengkhw Brahma, Mahesh Patel, and Bimlesh Kumar	978-3-319-55125-8	2017
Book Chapter	Fluid Mechanics and Fluid Power Contemporary Research Lecture Notes in Mechanical Engineering / Flow over fluvial bedforms with suction	Springer	Mahesh Patel, Sainath Panigrahi, and Bimlesh Kumar	978-81-322-2743-4	2016

Research Projects :

Role	Project Type	Title	Funding Agency	From	To	Amount	Status	Co-Investigator
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PI	Consultancy Research Project	Hydro-geological Study of Area in the Vicinity of SEL Manufacturing Company Ltd. Nawanshahr District of Punjab	SEL Manufacturing Company Ltd. Nawanshahr Punjab	22-09-20	22-09-2021	17.11 Lacs	Completed	Dr JK Ratan
PI	Consultancy Research Project	Ground Water Investigations of Rana Sugars Limited Buttar Seviyan area of Amritsar District, Punjab	Rana Sugars Limited Punjab	22-12-2021	22-05-2022	12.98 Lacs	On-going	Dr JK Ratan, Dr Kanish Kapoor
Project Investigator	Research Project	Influence of Land Use and Land Cover on Stream Morphology in Punjab Region	TEQIP-III	01-11-2018	31-03-2021	2.08 lacs	Completed	Dr Navdeep Singh
Project Investigator	Research Project	Investigations of Flow and Bed Morphology in Steep Mountain Streams	Core Research Grant, SERB Govt of India	31-05-2022	30-05-2025	65.75 Lacs	On-Going	Dr Kanish Kapoor

Events Organized :

Category	Type	Title	Venue	From	To	Designation
Short Term Course	National	Recent Research and Innovations in Civil Engineering	Department of Civil Engineering, NIT Jalandhar, Punjab	16-07-2018	20-07-2018	Coordinator
Workshop	National	Application of Superplasticizers and Air Entraining Agents in Concrete Industry	NIT Jalandhar	02/02/2019	02/02/2019	Coordinator

Webinar Series, 16 weeks, Managing by Registration fee	National	Industry - Institute - Interaction and Training	Department of Civil Engineering, NIT Jalandhar	22-08-20	05-12-20	Coordinator
Workshop	National	Application of Remote Sensing and GIS in Civil Engineering	Department of Civil Engineering, NIT Jalandhar	04-07-20	04-07-20	Coordinator
Webinar	National	Advancement in Construction Management & Carrier Opportunities (in association with NICMAR)	NIT Jalandhar	20-01-2022	20-01-2022	Coordinator
Webinar	National	Design & Analysis of Geogrid Reinforced Soil Wall (Presented by Dr B. Hanumantha Rao, IIT Bhuvneshwar)	NIT Jalandhar	13-03-2022	13-03-2022	Coordinator

Professional Affiliations :

Designation	Organization
Affiliate Member of ASCE	Americal Society of Civil Engineering (Membership ID 11964924)
Member of IAHR	International Association for Hydro-Environment Engineering and Research (Membership ID 80178)

PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Shailza Sharma	Simulation of Bed-load Transport in Steep Mountain Streams using Numerical and AI Techniques	On-going	2023	
Ajaz Ahmed Mir	Flow and Bedmorphology of Steep Mountain Streams	On-going	2022	
Jagdish Raj	Assessment of Ground Water Recharge using Experimental and AI Techniques	On-going	2021	
Abhimanyu Pathania	Climate change affect on river morphology in steep mountain streams	On-going	2021	
Rajwinder Singh	Utilization of Agriculture Wastes in Concrete Mixes	On-going	2019	

PG Dissertation Guided :

Student Name	Dissertation Title	Status	Year	Co-Supervisor
Ayushi Gupta	Effect of Excessive Use of Fertilizers on the Soil Properties: A Case Study	Completed	2021	
Manik Bhandari	Numerical Modelling of Soil Stabilized with Coir Fibre	Completed	2021	Dr Rajiv Kumar
Manisha Bansal	Impacts of Land Use and Land Cover Change on River Morphology - A Case Study of Satluj River	Completed	2021	

Mayank	Soil Stabilization based on the Resilient Modulus	Completed	2021	Dr Rajiv Kumar
Vaibhav Chaturvedi	Resistance Predictor with Bed Forms in Seepage Affected Alluvial Channel	Completed	2021	
Yaksh Kakkar	Utilization of Agricultural Waste for the Sustainable Production of Clay Bricks	Completed	2021	
Ankit Kumar Chaurasiya	The Effect of Integration of Rice Straw Ash on the Mechanical and Durability Properties of Concrete	Completed	2020	
Nagesh Kumar Gautam	Effect of Sugarcane Bagasse Ash on Characteristics of Concrete with Partial Replacement of Fine Aggregate	Completed	2019	
Ram Lal Riyar	Enhancing the Properties of Recycled Aggregate Concrete using Different Beneficiation Techniques	Completed	2019	Dr Kanish Kapoor

Admin. Responsibilities :

Position Held	Organization	From	To
Warden of Hostel 4	Dr B R Ambedkar National Institute of Technology Jalandhar	13-08-2019	08-08-2020
Coordinator	Hydraulics Lab, Civil Engg Dept	25-01-2018	Till date
B Tech Final Year Coordinator	Civil Engg Dept, NIT Jalandhar	18-02-2023	Till date
Member of Team Yukti 2.0	NIT Jalandhar	13-03-2023	Till date
Member of SPIC MACAY	NIT Jalandhar	20-05-2020	Till date
Coordinator of National Academic Repository ABC	NIT Jalandhar	02-03-2021	Till date

Award and Honours :

Title	Activity	Given by	Year
Future Talents' Postdoc Career Days 13th to 16nd May, 2019	Invited and Funded by the Technische Universität Darmstadt, Germany	TU Darmstadt, Germany	2019
Future Talents' Postdoc Career Days 19th to 22nd March, 2018	Invited and Funded by the Technische Universität Darmstadt, Germany	TU Darmstadt, Germany	2018
Travel Grant to Attend International Conference	For Participating International Conference '4th IAHR Europe Congress' in Liege, Belgium	Science and Engineering Research Board, Department of Science and Technology, Govt of India	2016
3rd prize	Poster presentation in Assam Water Conference	Executive Enginner of PWD, Govt of Assam	2014
Castigliano's Award	For best structure student during under-graduation	H.H. Jyotiraditya Scindia, Chairman Board of the governors	2009-10