

Dr. Samaiya Nitin Kumar

Associate Professor

Education: B.E. (Civil Engineering), M.Tech. (Civil Engineering), Ph.D. (IIT Roorkee)

E-mail: nitin.samaiya@juet.ac.in

Contact No. : Ext. - 228

Areas of Interest: Fluvial Hydraulics, Flow in Compound Channel, Design of hydraulic Structures.

Brief Profile:

Dr. Nitin Kumar Samaiya did B.E. in Civil Engineering from NIT Surat (erstwhile SVRCET Surat), M.Tech. in Civil Engineering from IIT Roorkee and Ph.D. from IIT Roorkee. He joined Jaypee Institute of Engineering and Technology (Now Jaypee University of Engineering and Technology) in June 2006. His research interests include Fluvial Hydraulics, Flow in Compound Channel, Design of Hydraulic Structures, Groundwater Pollution and Concrete Technology.

Ph,D Guided:

1. Mr. D. K. Shukla," Experimental investigation on strength behaviour of sloping rock mass under a footing placed at variable edge distance" June 2016.

Ongoing Ph.D

1. Mr. Brahma Dutta Purohit, Utilization of processed recycled aggregate in concrete pavements, since 2021.
2. Mr. K. N. Katare, "Utilization of biomedical waste ash" , since 2017.

Publication@JUET

[Publication details google profile link](#)

1. Himanshu Gaur, Lema Dakssa, and Nitin Kumar Samaiya, "A novel stress-based formulation of finite element analysis" . Journal of Zhejiang University SCIENCE A. 2020.
2. Walia S, Khullar N. K., Singh J and Samaiya, N. K., "Study on Changes in Mannings Roughness Coefficient in the Presence of Different Concentrations of Wash Load" . Hydrology Journal, Vol. 37, Issue 1 & 2, pp 42-51. 2014.
3. Samaiya, N. K. and Kothiyari, U. C. "Infiltration of cohesive wash material and bed material transport in an alluvial channel" . Journal of Hydraulic Engineering - Indian Society for Hydraulics, Vol. 12, No. 3. pp. 1-11, 2006.
4. Kumar, A., and Samaiya, N. K., Kothiyari, U. C., "Velocity, Discharge and Turbulence Characteristics in Straight Compound Channels" . Journal of Hydraulic Engineering - Indian Society for Hydraulics, Vol. 11, No. 3. pp. 91-102 2005.

Research papers presented at seminars

1. Kumar, A., Samaiya, N. K., and Kothiyari, U. C. "Velocity and Discharge in Compound Channels." Proc. Conf. on Hydraulics and Water Resources-HYDRO 2004, Nagpur, India, pp . 2004.
2. Samaiya, N. K., and Kothiyari, U. C. "Effect of Cohesive Wash load on bed Load Transport." Proc. Conf. on Hydraulics and Water Resources-HYDRO 2005, Tumkur, India, pp 609-616, 2005.
3. Samaiya, N. K., Sen, R. and Bhardwaj, U. "Velocity Profiles in Open Channel with Different Bed Conditions." National conference on recent development in applied mathematical science and engineering, Jalpaiguri Government Engineering College, Jalpaiguri , West Bengal, India, 2009.
4. Kumar, A., and Samaiya, N. K., "Comparative study of flow characteristics around circular compound piers in rigid bed condition" . Proc. Conf. on Recent Advancements in Civil Engineering a& Infrastructure Developments- RACE-InD 2011, JUET Guna, pp H-62- H-69 2011.
5. Samaiya, N. K., Kumar, A., and Kothiyari, U. C. "Flow Resistance for Rigid Bed Channels Carrying Cohesive Wash Load" . Proc. Conf. on Recent Advancements in Civil Engineering a& Infrastructure Developments- RACE-InD 2011, JUET Guna, pp H-69- H-74, 2011.
6. Samaiya N. K.,Kothiyari, U. C. and Khullar N. K. "Limiting Concentration of Wash Load Transport in Open Channels" . Proc. Conf. on Hydraulics and Water Resources-HYDRO 2011, Surat, India. pp 550-559, 2011.
7. Samaiya N. K., Khullar N. K. "Load Through Channels and their Effect on Sediment transport -A Review" . Proc. Conf. on Hydraulics and Water Resources-HYDRO 2012, Mumbai, India. pp 487-494, 2012.
8. Samaiya N. K., Jain A. and Gupta R. "Assessment of Water Quality of GKS Canal" . Proc. Conf. on Environmental Sustainability and Society: The Growing Paradigm Shift-ESS-2013. JUET Guna, 2013.
9. Samaiya N. K.,Khullar N. K. "Selection of method for computation of hydraulics mean radius with respect to bed in a laboratory flume" . Proc. Conf. on DAV-NCST-2013. Jalandhar, 2013.
10. R K Goliya, N K Samaiya, G R Sabareesh, A. Gupta, "Current status of interference effect studies on tall buildings" The Eighth Asia-Pacific Conference on Wind Engineering, December 10-14, 2013, Chennai, India.
11. Samaiya N. K. and Khullar N. K. "Effect of cohesive wash load transport on bed load transport " . 18th International Conference on Hydraulics, Water Resources, Coastal and Environmental Engineering. December 4-6, 2013, IIT Madras. Chennai.
12. Samaiya N. K. "Infiltration of wash material into the pores of stream bed material" . Proceedings of the 7thInternational Symposium on Environmental Hydraulics, ISEH-2014. Singapore. pp 291-294. 2014.

13. Samaiya N. K. and Khullar N. K. "Effect of Presence of Cohesive Wash Load on Flow Resistance." Hydro 2014 International, 19th Conference on Hydraulics, Water resources & Environmental Engineering. Dec. 18-20th, 2014. MANIT Bhopal.

14. Samaiya N. K. and Khullar N. K. "Bed Load Transport in the Presence of Different Concentrations of Wash Load". Proc. of 20th International Conference on Hydraulics, Water Resources and River Engineering, HYDRO-2015 International, IIT Roorkee. (HYD-391). Pp. 1-18. Dec 17-19, 2015.

15. Ravindra Kumar Goliya and Nitin Kumar Samaiya, "A novel approach for testing of concrete affected by Urea" . 3rd International Conference on Trends and Recent Advances in Civil Engineering (TRACE 2020), Amity University, NOIDA, August 20-21, 2020.

Workshops and Seminars organized

1. Organized Workshop on Geotechnical Investigations for Embankments on October 27, 2018 at JUET Raghogarh.

2. Organized Three days Workshop on AutoCAD during 29-01-2016 to 31-01-2016 at JUET Raghogarh.

3. Organized Three days Workshop on REVIT during 11-03-2016 to 13-03-2016 at JUET Raghogarh.

4. Organizing committee member for National Conference- ESS-13 during 30-31, 03-2013 at JUET Raghogarh.

5. Organizing committee member for Workshop on Testing of Soil and Highway Materials during 21-22, 10.2012 at JUET Raghogarh.

6. Co - coordinator for Training Course on Cement and Concrete Technology during 22-23.11.2012 at JUET Raghogarh.

7. Co - coordinator for Training Course on Cement and Concrete Technology during 26-29.11.2012 at JUET Raghogarh.

8. Organized National Conference RACE - InD 2011 during 21-22, 12- 2011 at JUET Raghogarh.

9. Co - coordinator for Seven Weeks Training Course on Cement and Concrete Technology during 01-06-2012 to 19-07-2011 at JUET Raghogarh.

10. Co - coordinator for Training Course on Cement and Concrete Technology during 10-11-2011 to 11-11-2011 at Shree Cement Ltd. Beawar, Rajasthan.

11. Co - coordinator for Training Course on Cement and Concrete Technology during 15-11-2010 to 20-11-2010 at JUET Raghogarh.

12. Co - coordinator for Seven Weeks Training Course on Cement and Concrete Technology during 08-11-2010 to 25-12-2010 at JUET Raghogarh.

13. Co - coordinator for Seven Weeks Training Course on Cement and Concrete Technology during 11-01-2010 to 27-02-2010 at JUET Raghogarh.

14. Organized National Workshop on Testing of Concrete on 22.08-2010 at JUET Raghogarh.

15. Co - coordinator for Seven Weeks Training Course on Cement and Concrete Technology during 24-07-2008 to 10-09-2008 at JUET Raghogarh.

Workshops and Seminars attended (few are mentioned)

1. Attended 19th Conference on Hydraulics, Water resources & Environmental Engineering at MANIT Bhopal during 18-12-2014 to 20-12-2014.

2. Attended 7th International Symposium on Environmental Hydraulics, ISEH-2014 during 07-01-2014 to 09-01-2014 at NTU Singapore.

3. Attended All India seminar on Integrated Water Resources Management on 22-12-2009 at National Productivity Council, Ministry of Commerce and Industry, Govt of India, New Delhi.

4. Attended Indo-Australian International Conference on Information Technology in Civil Engineering during 20-21 February, 2006 at IIT Roorkee.

5. Attended National Conference Hydraulics and Water Resources-HYDRO 2005 during 08-09, 12, 2005 at SIT Tumkur, Karnataka.

6. Attended National Conference Hydraulics and Water Resources-HYDRO 2004 during 27-28, 12, 2004 at VNIT Nagpur, (MH).

7. Attended International Conference on Hydraulic Engineering: Research and Practice (ICON-HERP-2004) during 26-28, 10-2004 at IIT Roorkee.

Reviewer for research journals:

1. International Journal of Earth Sciences and Engineering (IJEE).

2. Institution of Engineers India A - series.

3. JUET Research Journal of Science and Technology

Honors and awards obtained:

1. Selected as expert member of District-level Expert Appraisal Committee (DEAC) for Guna district in April 2016 for a tenure of three years.

2. Selected as expert member of District-level Expert Appraisal Committee (DEAC) for Ashoknagar district in April 2016 for a tenure of three years.

3. External examiner for Ph.D. viva-voce at GTU Gandhinagar October, 2020.

4. External examiner for M. Tech viva-voce at Department of Civil Engineering, SVNIT Surat on October, 30 2013.

5. Recipient of GATE Scholarship during M. Tech at IIT Roorkee (2000-2002).

6. Recipient MHRD, Govt. of India institute fellowship while pursuing PhD at IIT Roorkee (2003-2006).

Invited talks/expert lecture:

1. Delivered lectures in Short Term Training Course on Cement and Concrete Technology at JUET Guna during 24.07.08 to 10.09.08.

2. Delivered expert lecture in National Workshop: Hydropower Development: Issues and Challenges on Wash Load Transport: A Reference to Hydropower Projects, at JUIT Waknaghat in 2009.

3. Delivered lectures in Seven Weeks Short Term Training Course on Cement and Concrete Technology at JUET Guna during 11.01.10 to 27.02.10.

4. Delivered lectures in Seven Weeks Short Term Training Course on Cement and Concrete Technology at JUET Guna during 08.11.10 to 25.12.10.

5. Delivered lectures in Seven Weeks Short Term Training Course on Cement and Concrete Technology at JUET Guna during 15.11.10 to 20.11.10.
6. Delivered lectures in Seven Weeks Short Term Training Course on Cement and Concrete Technology at JUET Guna during 01.06.11 to 19.07.11.
7. Delivered lectures in Short Term Training Course on Cement and Concrete Technology at Shree Cement, Beawar (RJ) during 10-11.01.2011.
8. Delivered lectures in Short Term Training Course on Cement and Concrete Technology at JUET Guna during 22-23.11.2012.
9. Delivered lectures in Short Term Training Course on Cement and Concrete Technology at JUET Guna during 26-29.11.2012.
10. Delivered expert lecture at Department of Civil Engineering, SVNIT Surat on October, 30 2013.
11. Delivered invited lecture at 3rd International Conference on Recent Trends in Science and Technology IC-RTST 2015 held at SVNU Sagar during 27-28 February, 2015.
12. Delivered invited lecture at 4th International Conference on Challenges in Environmental Science and Technology IC-CEST 2016 held at SVNU Sagar during 27-28 February, 2016.

Membership of society/position held in society

1. Indian Society for Hydraulics (ISH), Life member.
2. Indian society for Wind Engineering (ISWE), Life member.
3. Indian Water Resources Society (IWRS), Life member.
4. International Association of Hydrological Sciences (IAHS), Life member.
5. Life member of Thomason Alumni Association (IIT Roorkee).
6. Life member of Institution of Engineers (IEI) India.

Contribution/ Participation in Students Extra & Co- Curricular activities:

1. Founded Civil Engineering Forum in 2012, to provide a platform for Civil Engineering Students to showcase their technical as well as co-curricular talents.
2. Two educational tours for B.Tech CE students to Omkareshwar Hydro Electric Plant and Bina Thermal Plant were planned and coordinated.

Contribution/ Participation in Departmental Activities & Development:

1. Addition of new experiments in Fluid mechanics laboratory: Open Channel & Wind Tunnel.
2. Updated/Revised Fluid mechanics lab manuals regularly.
3. Subjects Syllabus Modified/Prepared: River Engineering, Dam and Reservoir Design, Design of Hydraulic Structures, Water Resource Engineering, Fluid Mechanics and Hydropower Engineering.
4. Seminar Coordinator for the session 2012 - 2013.
5. Coordinator for preparing Civil Engineering Course Structure.
6. Time table coordinator for Civil Engineering Department during 2007-2019.
7. Member secretary for BOS of Civil Engineering Department during 2014-15.
8. Prepared and evaluated PhD admission Test Question Papers for Civil Engineering Department for 2010, 2011 and 2012.
9. Prepared and evaluated PGET Question Papers for Civil Engineering Department since 2012.
10. Arranged expert lectures in the University by eminent persons like Prof. Prem Krishna, Dr. S. Arunachalam, Sh. Harprasad ji and Sh. S. H. Mankad etc.

Contribution/ Participation in University Activities & Development:

1. Appointed as Liaisoning Officer during UGC Visit.
2. Prepared various documents required during UGC Visits.

3. Nominated by University to visit NWTF at IIT Kanpur in connection with the establishment of Wind Energy Application Centre (WEAC) at JUET Guna.
4. Member of anti ragging squad of the University.
5. University - Faculty-Sports-in-charge during academic year 09- 10 and 13-14.
6. Editorial member of JUET Research Journal of Science and Technology during 2014-2015, 20019-2200 and 2020-2021.
7. Member University NAAC documentation committee.
8. Departmental Coordinator for preparation for NAAC documentation.
9. Hostel warden since July, 2016.
10. Member University Disciplinary Committee from July 2018.
11. Fresher's Coordinator of CE Department, Jaypee University of Engineering and Technology, Guna from 2017.
12. Member, University Admission Committee from 2020.