

## CURRICULUM - VITAE



1. Name: **Dr. Rohit Goyal**
2. Designation: Professor (HAG), Civil Engineering Department
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  1. Institutional: Professor (HAG), Civil Engineering, Malaviya National Institute of Technology Jaipur Jaipur 302 017. India.  
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  3. E-mail Address: rgoyal.ce@mnit.ac.in
5. Present Occupation: Professor in Civil Engineering, Malaviya National Institute of Technology, Jaipur, India.
6. Professional/Academic Qualifications:
  1. **Doctoral Research** from University of Roorkee, India, under the guidance of Dr. A. S. Chawla. Topic: “Seepage from Canals Founded on Finite Pervious Soil with Asymmetric Drainages”, 1991-94, degree 1996.
  2. **Post Graduate Diploma in Remote Sensing Applications** in Water Resources, with Distinction, from Indian Institute of Remote Sensing, Dehradun, India, 1989.
  3. **M.E. (Hydraulics & Irrigation Engrg) - 1st Class Honours** degree from University of Roorkee, Roorkee, India, 1986.
  4. **B.E. (Civil) - 1st Class Honours** degree from Birla Institute of Technology & Science, Pilani, India, 1984.
7. Other Qualifications:
  1. Brainbench Certificate in c++, October 4, 2000.
  2. Certificate Course in French Language, University of Rajasthan, 1988.
8. Awards/Honours/Membership of recognized committee
  1. Member, State Level Expert Appraisal Committee (SEAC) for Rajasthan State (2008-2010), Gazette Notification No. S.O. 1887(E) dated 30<sup>th</sup> July 2008, Government of India.
  2. **Best Paper Award** in GIS India 2003 conference held in Birla Auditorium, 8<sup>th</sup>-10<sup>th</sup> Jan. 2003, Jaipur
  3. **Career Award for Young Teachers (1995)** by All India Council for Technical Education, New Delhi, India.

4. **Outstanding Paper Award** (Third Prize) in 8<sup>th</sup> Int. Conf. on Environmental Science and Technology 2016 organized by The American Academy of Science, Houston, Texas, USA, June 6-10.
9. Awards by students:
1. Co-Guide for students project funded by DST, Rajasthan for which students received **Second Best Award** amongst all projects of Rajasthan, 2004.
  2. Guide for students project for which they received **Best Student Paper Award** in Map India 2004 conference held in New Delhi, 28<sup>th</sup> – 30<sup>th</sup> Jan. 2004.
10. Research Projects:
1. Mentor for DST research project under the Women Scientists Scheme (WOS-B) for Dr. Ankita Pran Dadhich titled “Water, sanitation, and hygiene interventions for schools of rural areas in Rajasthan: Measurement, Monitoring, Assessment and Reporting using GIS platforms”, Dec. 2019 onwards. Project Amount: Rs. 36.76 lacs.
  2. Principal Investigator for MNIT Jaipur for a joint research project by SVNIT, Surat, MNIT Jaipur and MANIT Bhopal titled “Impact of Climate Change on Water Resources of Tapi Basin”, funded by Ministry of Water Resources, Government of India, Project Sanctioned, Started since 12<sup>th</sup> March 2018. Total cost 18.27 lacs.
  3. Mentor for DST research project under the Women Scientists Scheme (WOS) for Dr. Ankita Pran Dadhich titled “Sustainability Evaluation of Urban Environment Quality and Development of upcoming Megacities of India”, Sept. 2015 to Sept. 2018. Project Amount: Rs. 23.92 lacs.
  4. Principal Investigator for Department of Science & Technology, Govt. of Rajasthan funded student research project titled “Quantization and Management of Urban Storm Drainage”, 2006. Project Amount: Rs. 12,000.00.
  5. Co-PI for Department of Science & Technology, Govt. of Rajasthan funded student research project titled “Development of GIS Based Decision Support System for Environmental Planning of Jaipur City”, 2004. Received Second Best Award. Project Amount: Rs. 13,000.00.
  6. Principal Investigator for MHRD funded research project titled “Waterlogging Studies of River Ghagger and IGNP Command Area, Hanumangarh and Sri Ganganagar Districts”, 2000-2003. Project Amount: Rs. 5.00 Lacs.
  7. Co-Investigator for MHRD funded Modernization & Removal of Obsolescence project on “Development and Modernization of Remote Sensing & Survey Lab. for Department”, 2000-2003. Project Amount: Rs. 8.00 Lacs.
  8. Principal Investigator for AICTE Career Award project titled “Estimation of Seepage from Canals for Waterlogging Applications”, 1995-98. Project Amount: Rs. 3.0 lacs + Salary for 3 years.
11. Membership of International/National societies:
1. Life member of Indian Society of Geomatics since 2007. Membership No.: ISG-L-985.

2. Member of American Society for Civil Engineers (ASCE) from 1999-2001: Identification No. 360760
3. Member of International Association for Hydraulic Research (IAHR) from 1990 to 1998. Membership No.: I 6009
4. Life Member of The Institution of Engineers, India (I.E.) since 1990. Membership No.: M 58057/5
5. Fellow (2003) & Life Member of The Indian Society for Hydraulics (ISH) since 1994. Membership No.: F-114, LM/94/114, Member Editorial Board, 2003-2005.
6. Life Member of Indian Society for Technical Education (ISTE) since 1990. Membership No.: LM 6823
7. Life Member of Indian Society of Remote Sensing (ISRS) since 1989. Membership No.: L 609, President Jaipur Local Chapter, 2004, Vice President 2003.
8. Life Member of Indian Water Resources Society (IWRS) since 1988. Membership No.: LM-88-1760
9. Life Member of The Indian Association of Hydrologists (IAH) since 1990. Membership No.: LM-638
10. Life Member of Computer Society of India (CSI) since 1995. Membership No.: 00002450

12. Details of practical training and research work:

1. Research Work on “Canal Seepage Estimation for Water Logging Applications/Solutions”, as the AICTE Career Award for young teachers project at Malaviya National Institute of Technology (Formerly MREC), Jaipur. In this work analytical solution for seepage from canal and mathematical modelling for subsurface drainage network was carried out.
2. Ph.D. Thesis on the topic “Seepage from Canals Founded on Finite Pervious Soil with Asymmetric Drainages”, after doing 3 years of research work under the guidance of Dr A.S. Chawla, Prof., Water Resource Development and Training Centre, University of Roorkee, Roorkee, India. In this work, analytical solutions were obtained for estimation of seepage, and free surface profile for seepage from canals under various conditions.
3. About 10 months of research experience at University of Roorkee, for the M.E. Thesis, under the guidance of Dr R.J.Garde, Prof. Emeritus, Pune, on the topic “Subcritical Expanding Transitions in Open Channels”. Laboratory experiments were carried out to understand the effects of curved vanes and spirals.
4. About 3 months of research work at Indian Institute of Remote Sensing, while doing P. G. Diploma, under the guidance of Dr. A.K.Chakraborti, Prof. I.I.R.S., Dehradun on the topic of “Remote Sensing and GIS Applications in Watershed Studies”. Metamorphic analysis of Asan River watershed was done using remote sensing data and GIS was used to undertake watershed studies.
5. About 6 months of practical training (P.S. II) as a requirement of B.E.(Hons.) from Birla Institute of Technology & Science, Pilani. Training was taken at Paradeep Fertiliser Plant, Paradeep, Orissa from Jan. to July 1984.

6. About 45 days of practical training (P.S. I) as a requirement of B.E.(Hons.) from Birla Institute of Technology & Science, Pilani. Training was taken at Central Drug Research Institute, Lucknow from 1<sup>st</sup> June to 15<sup>th</sup> July 1982.

13. Details of present and previous employment's:

1. Present Employment: Currently working as Professor (HAG) in Civil Engineering Department of Malaviya National Institute of Technology, Jaipur since 11<sup>th</sup> Feb. 2019. Earlier was working as Professor, Civil Engineering since 3<sup>rd</sup> Oct 2006. The nature of work includes guidance of Ph.D., M.Tech. students for the project, seminars and dissertations, besides the teaching work for U.G.(Civil) and M.Tech.(Water Resources, Disaster Assessment & Mitigation, Environmental Engg., Transportation Engg.) students, Research Work, Organisation of Training Schools etc.

Total Ph.D. Dissertation completed 10, under progress 3

Total M.Tech. Dissertations completed 69, under progress 5

M.E./ M.Tech. Projects/Seminars Approx.: 30

U.G. Projects/Seminars: Approx. 45

External Examiner outside MNIT for Ph.D./M.Tech. Dissertations: 12

Administrative work:

- a. Coordinator, Centralized M.Tech. and M.Sc. Counselling for NITs (CCMT and CCMN-2021).
- b. Chairman, Central Computer Centre, MNIT Jaipur from 5<sup>th</sup> July 2019 to 19<sup>th</sup> Jan. 2022.
- c. Regional Coordinator, RAC-S, MNIT Jaipur from 5<sup>th</sup> Feb. 2019 to 29<sup>th</sup> July 2021.
- d. Dean, Planning & Development from 24-05-2014 to 31-05-2017.
- e. Launched Student Mentorship Programme (SMP) from the 2014-15 batch of UG Student. Orientation programme of all fresh students was very successfully organized from 28<sup>th</sup> to 30<sup>th</sup> July 2014 under the SMP programme. Also Coordinator, SMP for the year 2015.
- f. Dean, Research & Consultancy from 13-06-2013 to 10-08-2014
- g. Registrar (I/c), MNIT from 18-07-2013 to 13-09-2013
- h. Convener 6<sup>th</sup>, 7<sup>th</sup> & 8<sup>th</sup> Convocations. In 8<sup>th</sup> Convocation, Hon'ble President of India, Shri Pranab Mukherjee was chief guest, Hon'ble Governor of Rajasthan, Mrs. Margaret Alva was guest of honor and Hon'ble Chief Minister of Rajasthan, Shri. Ashok Gehlot was Special Guest and function was very successful.
- i. Convener, Centralized M.Tech. Counselling for NITs (CCMT-2012). This counselling was organized for all NITs for the first time and all the process and online application system were developed for the first time. Process was completed within time frame & successfully.
- j. Dean Academics from 28-06-2011 to 10-07-2013. During this period new rules & regulations were framed and various subcommittees like SPGB, SUGB etc. were made active. Online admission process were introduced, new Ph.D. evaluation system was developed and put in place. Backlog of caution money refund,

excess fee refund and examiners abroad, pending for a long time were settled.

- k. Professor Training & Placement 22-11-2010 to 27-06-2011. Excellent placement statistics were reached during this time and for the first time very good placements were made in M.Sc., M.Tech. & MBA.
- l. Head, Civil Engineering Department 24-08-05 to 30-06-08. Accreditation of UG & PG programme was carried out for the first time and was placed as best department in the Institute. Labs were made free from obsolete to the level possible.
- m. Centre Incharge AIEEE Counselling 2010, 2008, 2006 & Dy. Centre Incharge, 2005. Very successfully conducted many centralized admissions even during the challenging times when due to NIT Allahabad server problem counselling was conducted till 3:00 PM and started on time at 8:00AM next day. Had given many useful feedbacks from time to time.
- n. Nodal Officer TEQIP, Civil Works, 2004-2006.
- o. Convener CAD Lab-I, TEQIP, for setting up CAD Lab-I.
- p. Convener/Members of committees for various activities.

Previous Employment: Worked as Reader from 12<sup>th</sup> Oct. 1991 to 3<sup>rd</sup> Oct. 2006 and before that Lecturer from 16<sup>th</sup> Dec. 1985 to 12<sup>th</sup> Oct. 1991 in Civil Engineering Department of Malaviya National Institute of Technology (Erstwhile MREC), Jaipur. The nature of work included teaching for the U.G. (Civil) and M.E. (Water Resources) students, Ph.D. guidance. This included taking lectures, tutorials, design and laboratory classes and also guided 2 Ph.D. Students, about 32 M.Tech. and 45 U.G. students for their seminars/projects/dissertations etc. Administrative duties include Member, U.G. (Academic) Board, 2004-05, Convener, screening committee for the post of computer operator, 2004, Coordinator MIS Project from 20/5/2003 to Aug. 2003, Incharge various labs, timetable etc. and convener/member of various committees.

#### 14. Details of papers presented/accepted for publication:

##### A. Refereed Papers

1. Kumawat, G.R., Munoth, P. & Goyal, R. (2023) Improving prediction of missing rainfall data by identifying best Artificial Neural Network model. J Earth Syst Sci 132, 192. <https://doi.org/10.1007/s12040-023-02203-0>.
2. Rohit Goyal and Hansa Rajput (2023), "Multi Model Approach to Study the Effect of Conceptualization and Discretization on Groundwater Model", Int. J of Engrg. Research in Mechanical and Civil Engrg., Vol 10, Issue 4, ISSN (online) 2456-1290.
3. Ankita P. Dadhich, Pran N. Dadhich and Rohit Goyal (2022), "Synthesis of water, sanitation, and hygiene (WaSH) spatial pattern in rural India: an integrated interpretation of WaSH practices", J. Environmental Science and Pollution Research, Accepted: 4 July 2022, <https://doi.org/10.1007/s11356-022-21918-z>.

4. Vyas, A.D., Mahale, K. and Goyal, R. (2021), “A GIS-Based Methodology to Determine Effect of Vehicular Pollution at Ward Level: Case Study of Jaipur City”, *J. Nature Environment and Pollution Technology*, 20(4), Dec., pp. 1789-1801.
5. Ankita P. Dadhich, Rohit Goyal, Pran N. Dadhich (2021), “Assessment and Prediction of Groundwater using Geospatial and ANN Modeling”, *Water Resour Manage* 35, 2879–2893 (2021). <https://doi.org/10.1007/s11269-021-02874-8>.
6. Anil Dutt Vyas, Kushal Mahale, Dhruv Ajmera & Rohit Goyal (2020) Optimum weights of environmental parameters in evaluating urban environmental sustainability index: case study of Jaipur city, *ISH Journal of Hydraulic Engineering*, DOI: 10.1080/09715010.2020.1830865
7. Munoth, P., Goyal, R. Hydromorphological analysis of Upper Tapi River Sub-basin, India, using QSWAT model. *Model. Earth Syst. Environ.* (2020). <https://doi.org/10.1007/s40808-020-00821-x>
8. Rajput, H., Goyal, R. & Brighu, U. (2020), Modification and optimization of DRASTIC model for groundwater vulnerability and contamination risk assessment for Bhiwadi region of Rajasthan, India. *Environ Earth Sci* 79, 136. <https://doi.org/10.1007/s12665-020-8874-z>
9. Priyamitra Munoth & Rohit Goyal (2019) “Effects of area threshold values and stream burn-in process on runoff and sediment yield using QSWAT model”, *ISH Journal of Hydraulic Engineering*, Taylor & Francis, Published online 26 Sep 2019, <https://doi.org/10.1080/09715010.2019.1670107>.
10. Priyamitra Munoth & Rohit Goyal (2019) “Effects of DEM Source, Spatial Resolution and Drainage Area Threshold Values on Hydrological Modeling”, *Water Resources Management*, Vol. 33 (9), Published online 22 June 2019. <https://doi.org/10.1007/s11269-019-02303-x>
11. Priyamitra Munoth & Rohit Goyal (2019) Impacts of land use land cover change on runoff and sediment yield of Upper Tapi River Sub-Basin, India, *International Journal of River Basin Management*, 18 (2), 177-189. DOI: 10.1080/15715124.2019.1613413
12. Rajput, Hansa, Kumar, Arpit and Goyal, Rohit (2019). “Use of Improved DRASTIC model for groundwater vulnerability assessment of upper Alwar district of Rajasthan state”, *ISH Journal of Hydraulic Engineering*, Taylor & Francis, Published online 5 April 2019, <https://doi.org/10.1080/09715010.2019.1599303>
13. Ritu Agarwal, M. P. Yadav, Ravi P. Agarwal and Rohit Goyal (2018). “Analytic Solution of Fractional Advection Dispersion Equation with Decay for Contaminant Transport in Porous Media”, *J. Matematički Vesnik*, Available online 13.07.2018. Article in press.
14. Ankita P. Dadhich, Pran N. Dadhich and Rohit Goyal (2018). “Urban Spatio-Temporal Changes and its Impact on Urban Heat Island - Kota City”, *Journal of Basic and Applied Engineering Research*, Volume 5, Issue 2, April-June, pp. 94-99.

15. Ankita P. Dadhich, Pran N. Dadhich and Rohit Goyal (2018). "A GIS Based Approach for Assessment of Ambient Air Quality in Kota City", *Journal of Basic and Applied Engineering Research*, Volume 5, Issue 2, April-June, pp. 89-93.
16. Neelam Shekhawat, Ankita Pran Dadhich and Rohit Goyal (2018). "Temporal Analysis of Land Surface Temperature and Land Use/ Land Cover using Remote Sensing", *Journal of Civil Engineering and Environmental Technology*, Volume 5, Issue 2; April-June, pp. 71-77.
17. Kuldeep Tiwari; Rohit Goyal; Archana Sarkar (2018). "GIS-based Methodology for Identification of Suitable Locations for Rainwater Harvesting Structures", *Water Resour Manage*, Volume 32, Issue 5, pp 1811–1825, First Online: 17 January 2018.
18. Khandelwal S., Goyal, R., Kaul, N. and Mathew, A. (2018) "Assessment of land surface temperature variation due to change in elevation of area surrounding Jaipur, India", *The Egyptian J. of Remote Sensing and Space Sciences*, 21 (1), Pp. 87-94 <http://doi.org/10.1016/j.ejrs.2017.01.005>.
19. Ramsey, Elizabeth; Berglund, Emily Z.; Goyal, Rohit (2017) "The Impact of Demographic Factors, Beliefs, and Social Influences on Residential Water Consumption and Implications for Non-Price Policies in Urban India." *Water* 9, no. 11: 844.
20. Tiwari, Kuldeep, R. Goyal, and A. Sarkar (2017) Impact of Wheat and Mustard Crop Water Requirements on Water Resources Management of Development Corridor, *Plant Archives*, Vol. 17 No.2, 1727-1733.
21. Tiwari, K., Goyal, R. and Sarkar, A (2017)., "GIS-Based Spatial Distribution of Groundwater Quality and Regional Suitability Evaluation for Drinking Water" *Environmental Processes*, Springer, 4, 645-662, <http://rdcu.be/uH0q>.
22. Dadhich A.P., Goyal R., Dadhich P.N. (2017) "Geospatial technique for drinking water quality analysis of Kota city", *International Journal of Engineering and Advanced Technology*, Vol. 6, Issue- NCSCT2017, April 2017 ISSN: 2249 – 8958, pp. 94-99.
23. Dadhich A.P., Goyal R., Dadhich P.N. (2017) "Assessment of temporal variations in surface water quality and water supply of Kota", *International Journal of Innovative Technology & Exploring Engineering*, Vol. 6, Issue- NCSCT2017, April 2017 ISSN: 2249 – 8958, pp. 89-94.
24. Dadhich A.P., Dadhich P.N. and Goyal R. (2017) "Multi Temporal land use-land cover change dynamics of Kota city, Rajasthan", *International Journal of Engineering and Advanced Technology*, Vol. 6, Issue- NCSCT2017, April 2017 ISSN: 2249 – 8958, pp. 137-141.
25. Rajput, H., Goyal, R. (2017). "Groundwater Quality and Contamination Source Assessment of Jaipur District using Multivariate Statistical Technique." *Engineering sciences International Research Journal* Vol 5, Spl Issue, ISSN 2320-4338.

26. Dadhich A.P., Goyal R., Dadhich P.N. (2017) Impact of Urbanization on arable land in Kota - a geospatial analysis. *Engineering Sciences International Research Journal*, Vol. 5 Spl issue, pp.1-4, ISSN: 2320-4338
27. Garg, A., Munoth, P., Goyal R. (2017). A Comparative Study of VH400 Sensor Readings with Gravimetric Moisture Contents using Different Dielectric Equations. *Life Sciences International Research Journal Vol 4, Spl Issue (2017)*. ISSN 2347-8691.
28. Dadhich A.P., Goyal R., Dadhich P.N. (2018) Assessment of spatio-temporal variations in air quality of Jaipur city, Rajasthan, India. *The Egyptian J. of Remote Sensing and Space Sciences*. 21(2), Sept., pp 173-181.
29. Dadhich, A.P., Goyal R., Dadhich, P.N. (2017). “An Assessment of Urban Space Expansion and its Impact on Air Quality using Geospatial Approach”, *J. Urban and Environmental Engineering*, Vol. 11, No. 1, Jan.
30. Kumar, M., Agrawal, N., Kumar, N., Bagariya, R.K. and Goyal, R. (2016), “Study of Water Conservation Measures Applicable for Jaipur”, *Int. J. of Research in Engineering & Technology*, 5(8), pp. 55-59.
31. Kushwaha, K. and Goyal, R. (2016), “Methodology for the Estimation of Groundwater Flux across Simplified Boundary using GIS and Groundwater Levels”, *J. of Current Science*, 110 (6), pp. 1050-1058.
32. Kuldeep Tiwari, Rohit Goyal, Archana Sarkar, Priyamitra Munoth (2015). Integrated water resources management with special reference to water security in Rajasthan, India. *Discovery, The International Daily Journal*, 41(188), 93-101.
33. Dhotre, ST, Sharma, G., Goyal, R. and Parikh, SK (2015), “Soil Moisture Estimating Governing Models –Parameter Estimation- A Review,” *Int. J. of Emerging Tech. and Adv. Engg.*, www.ijetae.com, 5(2), pp.165-172.
34. Dhotre, ST, Sharma, G., Goyal, R. and Parikh, SK (2015), “Soil Moisture Estimating Governing Models- A Review,” *Int. J. of Emerging Tech. and Adv. Engg.*, www.ijetae.com, 5(2), pp.158-164.
35. Dhotre, ST, Sharma, G., Goyal, R. and Parikh, SK (2014), “Finite Element Analysis for Seepage through Saturated and Unsaturated Soil-masses with Special Reference to the Details of Formulation of Equations Governing the Phenomenon,” *Int. J. of Emerging Tech. and Adv. Engg.*, www.ijetae.com, 4(12), pp.661-672.
36. Goyal, Rohit (2014), “Rooftop Rainwater Harvesting: Issues & Challenges”, *Indian Plumbing today*, 125 Collector’s Edition, www.ipt.co.in, May. pp. 148-161.
37. Singhal, Vijai and Goyal, Rohit (2014), “Groundwater model to predict the impact due to textile units at Pali”, *J. Arabian Journal of Geosciences*, 7(12), pp 5185-5192.
38. Kongre, D.N. and Goyal, Rohit (2013), “Prediction of Water Logging Using Analytical Solutions—A Case Study of Kalisindh Chambal River Linking Canal”, *J. Water Resource and Protection*, Scientific Research Publishing, 5, 624-632.



39. Singhal, Vijai, Kongre D.N. and Goyal, Rohit (2013), "Estimating Spatial Variation in Recharge/Extraction Using GIS: Case Study of Bandi River Area in District Pali", *Memoir Geological Society of India*, No. 83, pp. 40-50.
40. Goyal, Rohit and Arora, A.N. (2012) "Predictive modelling of groundwater flow of Indira Gandhi Nahar Pariyojna, Stage I", *ISH Journal of Hydraulic Engineering*, Taylor & Francis, 18:2, 119-128.
41. Singhal, Vijai and Goyal, Rohit (2012) "A methodology based on spatial distribution of parameters for understanding affect of rainfall and vegetation density on groundwater recharge", *European Journal of Sustainable Development* Vol. 1 (2), 85-96.
42. Arora, A.N. and Goyal, Rohit (2012) "Groundwater model of waterlogged area of Indira Gandhi Nahar Pariyojna, Stage I", *ISH Journal of Hydraulic Engineering*, Taylor & Francis, 18:1, 64-76.
43. Singhal, Vijai and Goyal, Rohit (2011), "Development of conceptual groundwater flow model for Pali Area, India", *African Journal of Environmental Science and Technology*, Vol. 5(12), 1085-1092.
44. Singhal, Vijai and Goyal, Rohit (2011), "GIS Based Methodology for Groundwater Flow Estimation across the Boundary of the Study Area in Groundwater Flow Modeling", *J. Water Resource and Protection*, Scientific Research Publishing, 3 (11), 824-831.
45. Bhaduri, M., Goyal, Rohit, Gupta, A.B. (2009), "Ground Water Quality in Sanganer Area of Rajasthan", *ISH Journal of Hydraulic Engineering*, Taylor & Francis, 15(3), 65-74, ISSN: 2164-3040.
46. Kushwaha, R.K., Pandit, M.K. and Goyal, Rohit (2009), "MODFLOW Based Groundwater Resource Evaluation and Prediction in Mendha Sub-Basin, NE Rajasthan", *J. Geological Society of India*, Vol.74, October, pp.449-458.
47. Goyal, Rohit and Arora, A.N. (2005), "Ground Water Modeling of Waterlogged Area in Hanumangarh & Sriganganagar Districts of Rajasthan", Bhu-Jal, Rajasthan Special Issue, *J. Central Ground Water Board*, Ministry of Water Resources, Govt. of India, 20(3&4), Jul-Dec., 52-60.
48. Arora, A.N., Dhaneria, K.S., Goyal, Rohit and Kashyap, R.P. (2005), "Socioeconomic Impacts of Waterlogging – A Case Study of Indira Gandhi Nahar Pariyojna, Stage 1" *J. IWRS*, 25(1), Jan., 67-82.
49. Dhamaniya A. and Goyal Rohit. (2004). "Use of GIS in Transportation Planning of Jaipur City." *J. GIS@Development*, 8(11), Nov., 38-43.
50. Goyal, Rohit. (2003). "Design and analysis of interceptor drains: analytical solution." *ISH Journal of Hydraulic Engineering*, Taylor & Francis, 9(1), 1-13, ISSN: 2164-3040.
51. Goyal, Rohit. (2003). "Design and analysis of interceptor drains: effect of parameters." *ISH Journal of Hydraulic Engineering*, Taylor & Francis, 9(1), 61-71, ISSN: 2164-3040.

52. Arora, A.N. and Goyal Rohit. (2002). "Environmental and socio-economical impacts of waterlogging in Hanumangarh and Sri Gangannagar districts." *J. Nature, Environment and Pollution Technology*, 1(3), Sept., 307-316.
53. Goyal, Rohit, and Chawla, A.S. (1997). "Seepage from canals with infiltration from the free surface zone." *J. Irrig. Drain. Eng.*, ASCE, 123(4), 257-263.
54. Goyal, Rohit, Chakraborti, A.K. and Sharma, G. (1995). "Comparative Study of Physical Characteristics of Asan River Watershed derived from Multi-Satellites Images." *J. Indian Soc. of Hydrologists*, Vol. XVIII, No. 1&2, Jan., 49-61.
55. Goyal, Rohit, Porey, P.D. and Garde, R.J. (1994). "Some Studies on Subcritical Expanding Transitions in Open Channel." *J. Central Board of Irrigation and Power*, 51(4), Oct., 75-82.
56. Goyal, Rohit and Chawla, A.S. (1994). "Estimation of Seepage from Canals Founded on Finite Pervious Media with Asymmetrically Placed Drains." *59th Research and Development Session*, Proc. Central Board of Irrigation and Power, Vol. II Civil, Feb., 99-107.

#### B. Technical Reports

1. Mathur, Y.P, Goyal, Rohit, Sharma, G., Mathur S., Moorthy, N.S. and Joshi, H. (2005). Manual for "Planning, Designing, Construction, Operation and Maintenance of Anicut/Check Dam" for UNICEF Office for Rajasthan, Jaipur, January.
2. Gupta, A.B., Goyal, Rohit and Khandelwal, S. (2004). "Environmental Issues: Lessons Learnt." District Poverty Initiative Project (DPIP), Rajasthan, December.
3. Goyal, Rohit, Gupta A.B., Brighu, Urmilla and Rajput, Hansa (2018). "Study of Groundwater Quality of Bhiwadi Area (Rajasthan)", Report of Consultancy Project funded by Rajasthan State Pollution Control Board, Jaipur. May.

#### C. Books (Edited or Chapters)

1. Gupta, A.B., Goyal, Rohit, Mathur, Sanjay and Khandelwal, Sumit. (2008). "Hydro 2008: Hydraulics, Water Resources and Environment", Edited proceedings of National Conference Hydro-2008. Genius Publications, Jaipur. December, 15-16.
2. Goyal, Rohit and Arora, A.N. (2006). "Surface Water Resource Mapping Using Multidate Remote Sensing Data." Chapter 15 in Predictions in Ungauged Basins for Sustainable Water Resources Planning and Management, Ed. K. Srinivas Raju, M/s. Jain Brothers, New Delhi. November. 195-207.
3. Mathur, P.C., Gupta, A.B., Goyal, Rohit and Govindan, J.C. (2005). "Internal and External River Linking in Rajasthan (Socio-Technical Aspects). Edited Proceedings of One Day Seminar, MNIT, Jaipur, 15<sup>th</sup> Oct.

4. Arora A.N. and Goyal, Rohit. (2004). "Analysis of multi-date remote sensing digital data for mapping waterlogged area in Hanumangarh district of Rajasthan." Chapter 20 in Integrated Water Resources Planning & Management, Eds. K. Srinivas Raju, A.K. Sarkar, Motilal Dash, M/s. Jain Brothers, New Delhi. 179-188.
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D. Conferences/Seminars etc.

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2. Rakesh Choudhary, Priyamitra Munoth, and Rohit Goyal (2023), "Comparative Analysis of Digital Elevation Models for Assessing Watershed Characteristics and Stream Networks in a Watershed of Aandhi Village, Rajasthan, India", 28<sup>th</sup> Int. Conf. on Hydraulics, Water Resources and River Engineering, HYDRO 2023, NITW, Warrangal, Dec. 21-23, 2023
3. Rakesh Choudhary, Priyamitra Munoth, and Rohit Goyal (2023), "Assessing the Accuracy and Suitability of Digital Elevation Models through Integrated GNSS System: A Comparative Analysis for Terrain characteristic in Aandhi Village, Rajasthan, India", 28<sup>th</sup> Int. Conf. on Hydraulics, Water Resources and River Engineering, HYDRO 2023, NITW, Warrangal, Dec. 21-23, 2023
4. Goyal Rohit and Rajput, Hansa (2023) "Multi Model Approach to Study the Effect of Conceptualization and Discretization on Groundwater Model" in International Conference on Recent Developments in Civil and Mechanical Engineering (IRDCME-23), held at Jakarta Raya, Indonesia, 4th February 2023.
5. Dadhich A.P., Dadhich P.N., Goyal R. (2021) "Suitability Assessment of Irrigation Water Quality in Semi-Arid Region" in Proceedings of National Conference on "Climate, Community and Conservation", at Navrachana University, Vadodara, India, September 26-27, 2022.
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7. Shraddha Laxmi and Rohit Goyal (2021), "Analysis of Water Resources of Bisalpur Dam using Time Series Forecasting Models", 26<sup>th</sup> Int. Conf. on Hydraulics, Water Res. And Coastal Engrg., HYDRO 2021, SVNIT, Surat, Dec. 23-25.
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94. Arora, A.N. and Goyal, Rohit. (2003). "Conceptual Groundwater Modeling using GIS." *GIS India 2003, National Conf. on GIS/GPS/RS/Digital Photogrammetry and CAD*, Jaipur. 8<sup>th</sup>-10<sup>th</sup> Jan. **Received Best Paper Award in its section.**
95. Goyal, Rohit. (2002). "Role of Participating Institutes on HRD Issues." *Seminar Change Management Forum on "Capacity Building Issues in Urban Water and Sanitation: Preparing for the Challenge"*, Gangtok, 27<sup>th</sup> – 28<sup>th</sup> May.
96. Goyal, Rohit. (1996). "Computer Aided Design of Earthen Dams and Gated Spillways." *Symp. Earthen Dams*, organised by Committee for International Commission on Large Dams and C. B. I. P., New Delhi at Talwara Township (Punjab) from 18<sup>th</sup> to 20<sup>th</sup> Dec., 100-109.

97. Goyal, Rohit. (1996). "Geographical Information System Applications in Watershed Studies." *Nat. Seminar on New Strategies of Water Resources Management for 21<sup>st</sup> Century*, organised by JNV University, Jodhpur at Jodhpur from 20<sup>th</sup> to 21<sup>st</sup> Dec.
  98. Goyal, Rohit. (1996). "Internet: Opportunities for Meaningful Industry-Institute Interaction." *Workshop on Internet, Nicnet, Why, Where & How*, organised by C.B.I.P., New Delhi at Hotel Kanishka, New Delhi from 27<sup>th</sup> to 28<sup>th</sup> Dec.
  99. Goyal, Rohit. (1996). "Bed Topography in Alluvial Channel Bends." *Proc., All India Seminar on Hydraulic Engineering*, organised by I.S.H., Pune, I.E.(I), Nagpur local chapter and V.R.C.E. Nagpur from 27<sup>th</sup> to 28<sup>th</sup> Jan., 31-38.
  100. Goyal, Rohit and Kashyap, R.P. (1996). "Limitations of Lacey's Theory & It's Solution." *Proc., All India Seminar on Hydraulic Engineering*, organised by I.S.H., Pune, I.E.(I), Nagpur local chapter and V.R.C.E. Nagpur from 27<sup>th</sup> to 28<sup>th</sup> Jan., 39-44.
15. Detail of Short term courses/Workshops/International courses organised/attended as expert:
1. Delivered expert lecture on "Land Use and Land Cover: Policies, Guidelines, Data Generation and Analysis, Maps and Land Use Analysis, Land Use and Assessment of Environmental Impacts", in seminar on "Functional Areas in Environmental Impact Assessment" by The Wealthy Waste School, India at Ranthambore from 5<sup>th</sup> to 8<sup>th</sup> Oct. 2023.
  2. Delivered expert lecture on "Multimodel Approach on Groundwater to Study the Effects of Conceptualization and Discretization on Groundwater Model", in Second Quarterly Dialogue CGWB-CWC with State Government, Rajasthan" organized at CGWB Office on 26<sup>th</sup> Sept. 2023.
  3. Organized four fully sponsored physical five days each training programs on "RS & GIS Basic and Its Applications in Water Resources" for WRD Engineers, Government of Rajasthan between January to April 2023.
  4. Organized a fully sponsored online ten days training program on "Introduction to AutoCAD" for GWD Engineers, Government of Rajasthan between 15<sup>th</sup> March to 26<sup>th</sup> March 2021.
  5. Organized a fully sponsored five days each training program on "Groundwater Modeling" for GWD Engineers, Government of Rajasthan between 23<sup>rd</sup> Sept. to 27<sup>th</sup> Sept. 2019 at MNIT Jaipur.
  6. Organized a fully sponsored five days each training program on "SWAT" for WRD Engineers, Government of Rajasthan between 12<sup>th</sup> June to 16<sup>th</sup> June 2019 at MNIT Jaipur.
  7. Organized two fully sponsored five days each training program on "Basic Hydrology" for WRD Engineers, Government of Rajasthan between 14<sup>th</sup> May to 23<sup>rd</sup> May 2019 at MNIT Jaipur.

8. Organized two fully sponsored five days each training program on “Basic Hydrology” and “Advanced Hydrology” for WRD Engineers, Government of Rajasthan between 28<sup>th</sup> January to 22<sup>nd</sup> February 2019 at MNIT Jaipur.
9. Organized fully sponsored 5 days training program on “Groundwater Hydrology” for GWD Engineers, Government of Rajasthan from 7<sup>th</sup> to 11<sup>th</sup> January 2019 at MNIT Jaipur
10. Organized fully sponsored 5 days training program on “Basic Hydrology” for WRD Engineers, Government of Rajasthan from 17<sup>th</sup> to 21<sup>st</sup> September 2018 at MNIT Jaipur
11. Organized fully sponsored 5 days training program on “Remote Sensing & GIS basics and its application in Water Resources” for Ground Water Department Engineers, Government of Rajasthan from 4<sup>th</sup> to 8<sup>th</sup> September 2018 at MNIT Jaipur
12. Organized fully sponsored 5 days training program on “Advanced Remote Sensing & GIS basics and its application in Water Resources” for WRD engineers from 21<sup>st</sup> to 25<sup>th</sup> January 2018 at MNIT Jaipur
13. Was deputed to Asian Institute of Technology, Bangkok for 1 semester (Sept 2017 to Dec. 2017) as seconded faculty by MHRD, Government of India.
14. Delivered STAR Seminar on the topic of “Groundwater Modeling of Indira Gandhi Nahar Pariyojna (canal scheme), Rajasthan” on 16<sup>th</sup> Nov, 2017 at the venue W208 RSGIS Seminar Room, AIT Bangkok.
15. Organized fully sponsored 5 days training program on “Basic Hydrology” for WRD engineers from 21<sup>st</sup> to 25<sup>th</sup> August 2017 at MNIT Jaipur
16. Organized fully sponsored 5 days training program on “Remote Sensing & GIS basics and its application in Water Resources” for WRD engineers from 17<sup>th</sup> to 21<sup>st</sup> July 2017 at MNIT Jaipur
17. Delivered expert lecture in Training Program on Environmental Management in Atomic Minerals Directorate for Exploration and Research on 11<sup>th</sup> July 2017. Organized by AMD, Jaipur from 10<sup>th</sup> to 14<sup>th</sup> July 2017.
18. Delivered the keynote address on “Hydroinformatics” in one day Awareness Raising Programme under National Hydrology Project (NHP) organized by Central Ground Water Board, Ministry of Water Resources, Jaipur on 22<sup>nd</sup> March 2017 at IRD Hall, Water Resources Department, Govt. of Rajasthan, Jaipur.
19. Chaired a session in one day Workshop on “Sustainable Management of Ground Water Resources” Organized under Jal Kranti Abhiyaan by CGWB, Western Region, Jaipur at Panchayati Raj and Gramin Vikas Sansthan on 16<sup>th</sup> March 2017.
20. Organized series of 9, 2 day self financed refresher courses for the PHED Engineers between 15<sup>th</sup> Dec. 2016 to 25<sup>th</sup> July 2017.
21. Organized one day workshop in collaboration with Asian Institute of Technology (AIT) Bangkok, Thuyloi University (TLU), Vietnam and Central University of Rajasthan (CURAJ), Ajmer on “Developing an operational

water security index, and demonstrating its application in diverse regions of Asia” on 10<sup>th</sup> March 2015 at MNIT Jaipur.

22. Organized three days fresh students orientation programme for the batch 2014-15 from 28<sup>th</sup> July to 30<sup>th</sup> July 2014. Programme included activities like understanding rules & regulations by various deans/coordinators, expert talk by Vice President, Akshaya Patra on Human values, introduction to campus, cultural events, campus clean drive, plantation, launching of student mentorship programme (SMP).
23. Delivered invited expert lecture on “NBA Accreditation of UG and PG Programmes: Case Study of MNIT Jaipur” at National Seminar on Quality Assurance in Technical Education on 14<sup>th</sup> July 2014, organized by IET, Bhaddal Institutes, Ropar.
24. Organized as coordinator, self-financed two days training programme for RIICO Engineers on the subject of EC, EIA Studies, NBWL/CGWA Clearance, Consents and other Planning Related Issues from 8<sup>th</sup> May 2014 to 9<sup>th</sup> May 2014 at MNIT Jaipur.
25. Chairman Organizing Committee for one day MNIT-DRDO-OFB Meet for Joint Research Program on 25<sup>th</sup> April 2014 at MNIT Jaipur.
26. Delivered expert lectures on “Groundwater Modeling - Introduction” and “Groundwater Modeling – Case Studies” in workshop on “Ground Water Assessment, Development and Management” for the Officers of NABARD, organized by WRDM, IIT Roorkee, Roorkee on 25<sup>th</sup> Dec. 2013.
27. Convener, support team for DST PAC meeting held on 4<sup>th</sup>-5<sup>th</sup> Oct 2013 at MNIT Jaipur.
28. Participated as technical expert in Workshop on “Reforms in Engineering Services Examinations”, Organized by Union Public Service Commission, New Delhi at MNIT Jaipur on 6<sup>th</sup> Sept. 2013.
29. Chaired session on “Desalination and Water Conservation Schemes for Rural and Remote Areas; Rainwater Harvesting and Water Resource Management” in International Conference on Water Desalination, Treatment and Management, Organized by MNIT Jaipur and IDA on Feb. 21-22, 2013 at Jaipur
30. Delivered expert lecture on “Role of Technology (Remote Sensing and G.I.S) in Water Conservation” in State Workshop on “Water Conservation and Wastewater Recycle / Reuse in Rajasthan – Issues and Challenges”, organized by CSE, New Delhi at HCM RIPA. Jaipur on 7<sup>th</sup> Feb. 2013
31. Technical expert in committee constituted by Government of Rajasthan vide order no. CE WR/SE (W)/11153/2011/Ramgarh/3033 Dated 07-09-2012 to look into the reasons of drop in surface runoff in Ramgarh Dam, Sept. 2012-Jan. 2013.
32. Delivered theme paper in the Session “Applications of Geospatial Technologies”, Hydro 2011, National Conference on Hydraulics & Water Res., SVNIT, Surat, Dec. 29-30, 2011.

33. Organizing Secretary of 14<sup>th</sup> National Symposium on Hydrology with focal theme on Management of Water Resources under Drought Situation, MWRDS 2010, Jointly conducted by MNIT Jaipur and National Institute of Hydrology, Roorkee, 21-22 Dec. at MNIT Jaipur.
34. Delivered expert talks on “Achieving Groundwater Sustainability” and “Geographical Information System” in the Training Course on “Capacity Building of State PHED Engineers on Sustainability of Drinking Water Sources” organized by Central Ground Water Board, WR, Ministry of Water Resources, Govt. of India, from 20<sup>th</sup> -24<sup>th</sup> Sept. 2010 at HCM Rajasthan Institute of Public Administration.
35. Delivered expert talk on “Rainwater Harvesting: Case Study of RWH Structure at MNIT, Jaipur” in seminar on “Rainwater Harvesting” organized by Confederation of Indian Industry on 17<sup>th</sup> June 2010 at Hotel Best Western Om Tower, MI Road, Jaipur.
36. Delivered expert talk on “Groundwater Flow Modelling and the Role of GIS” in training course on “Application of Remote Sensing & GIS in Integrated Ground Water Resource Management” organized by RRSSC, Dept. of Space, Jodhpur from 29<sup>th</sup> March- 4<sup>th</sup> April 2010.
37. Chaired a session in All India Seminar of Environmental Engineers on “Noise Pollution”, organized by VIT Campus & Institution of Engineers (India) at VIT, Jaipur, 6-7<sup>th</sup> March 2010.
38. Attended as an expert, workshop on “Preparation of State Environmental Policy for Rajasthan”, organized by Teri with Rajasthan State Pollution Control Board on 15<sup>th</sup> Sept. 2009 at Hotel Fortune Bella Casa, Jaipur.
39. Visited North Dakota State University (NDSU), Fargo, ND, USA to evolve further research collaboration, development of courses, laboratory strengthening and curriculum development from 23<sup>rd</sup> to 27<sup>th</sup> March 2009.
40. Chaired main session in Workshop on Water Scenario, Efficient Use and Management in Rajasthan, organized by Central Ground Water Board, Ministry of Water Res., Govt. of India, Jaipur, March, 13-14, 2009.
41. Organizing Secretary of National Conference on Hydraulics, Water Resources and Environment, HYDRO-2008, organized by MNIT Jaipur with ISH Pune and UNICEF Rajasthan, 14<sup>th</sup> – 15<sup>th</sup> Dec. 2008 at Anu-Vibha Kendra, Jaipur.
42. Attended as an expert, “Optimization Workshop on Rain Water Harvesting.” Organized by Safe Water Network (SWN), USA, IIHMR, Jaipur and BCT, Jaipur on Oct. 14, 2008 at IIHMR, Jaipur.
43. Delivered keynote address on “Urban Heat Island Effect for Jaipur City”, All India Seminar on “Advances in Civil & Structural Engineering – High Rise Building”, Institution of Engineer’s (India) Jaipur Chapter, 4<sup>th</sup>-5<sup>th</sup> Oct. 2008.
44. Delivered expert talk on “Rainwater Harvesting” during the Session on Water Management and Plumbing Practices, 12<sup>th</sup> Indian Plumbing Conference organized by Indian Plumbing Association, Birla Auditorium, Jaipur, 25-26<sup>th</sup> July 2008.

45. Delivered expert talk on “Achieving Groundwater Sustainability” during various courses on IWRM at IMTI, Kota during June-July 2008.
46. Chaired session TS VI-C in International Conf. on Groundwater Dynamics and Global Change, University of Rajasthan, Jaipur, 19-22 March, 2008.
47. Co-chaired session on “Application of Geospatial Technologies” in National Conference on “Hydraulics and Water Resources” held on Dec. 21-22, 2007 at SVNIT, Surat.
48. Delivered two expert lectures on the topics of “Digital Terrain Modeling & Its applications” and “Unsupervised and Supervised Classification of RS Data” in Training course on “Application of Remote Sensing & GIS in Water Resources Field”, held by Irrigation Management & Training Institute at Kota from 25<sup>th</sup> – 27<sup>th</sup> Oct. 2007.
49. Co-chaired second session in National Conference on “IT and GIS Strategy for Infrastructure”, held at BM Birla Science & Technology Centre, Jaipur on 25<sup>th</sup>- 26<sup>th</sup> Oct. 2007.
50. Panel expert for 5<sup>th</sup> R&D Session of Indian National Council for Hydrology (INCOH), Ministry of Water Resources, Government of India, held at Udaipur during 15<sup>th</sup> – 16<sup>th</sup> Oct. 2007.
51. Delivered expert lecture on “Urban Hydrology” in seminar on “Urban Water Management”, organized at MNIT, Jaipur from 12<sup>th</sup> -16<sup>th</sup> Oct. 2007.
52. Expert for the workshop on “updating/framing/revision of syllabi of subjects at B.Tech. level”, Civil Engg. Dept., S.V.N.I.T., Surat, 19<sup>th</sup> Sept. 2007.
53. Resource person for World Bank sponsored training course on “Application of Remote Sensing & GIS in Integrated Ground Water Resource Management (IGWRM-2007)” organized by RRSSC, Dept. of Space, Jodhpur on 27<sup>th</sup> July 2007.
54. Resource person for two day programmes on “Environmental Imperatives”, organized by Management Development Academy for the executives of Jaipur Development Authority on 21<sup>st</sup> July 2007.
55. Organized two days workshop at MNIT Jaipur on “Waste Water Management and Treatment Technologies for Textile Industry” on 27<sup>th</sup> -28<sup>th</sup> June 2007 with GJU Hisar and RPCB, Jaipur funded under TEQIP.
56. Resource person for Management Development Programme on Integrated Water Resource Management for the topic of “IWRM-Monitoring, Evaluation and use of remote sensing & GIS” on 20<sup>th</sup> Feb. 2007 at Institute of Health Management Research, Jaipur.
57. Organized AICTE sponsored Staff Development Programme on “Applications of Remote Sensing and GIS to Water Resources and Environmental Engineering.” From 11<sup>th</sup> - 22<sup>nd</sup> December 2006, at MNIT, Jaipur.
58. Delivered expert talk on “Analysis of Free Online Remote Sensing Data For Flood Mitigation Studies: A Case Study of Surat Floods, 2006.” in 2 day



- workshop on “Disaster Mitigation Strategies for River Flood-A Case Study”, held at SVNIT, Surat from 28<sup>th</sup> to 29<sup>th</sup> Dec. 2006.
59. Organized 39<sup>th</sup> Engineers Day Celebration at Malaviya National Institute of Technology, Jaipur on the theme of “Global Perspective of Technical Education: Role of Engineers” on 15<sup>th</sup> Sept. 2006.
  60. Delivered expert talk on “Role of GIS in Natural Disaster Mitigation and Management” on 39<sup>th</sup> Engineers Day Seminar by the Institute of Engineers (India), Jaipur Chapter on 10<sup>th</sup> Sept. 2006.
  61. Organized one day Seminar on Internal and External River Linking in Rajasthan, (Socio-Technical Aspects). Design Centre, MNIT, Jaipur. 15<sup>th</sup> October 2005.
  62. Delivered expert lecture on “Use of latest remote sensing data for regional planning of water resources” in one day workshop on World Water Day focused on “Save Water & Drought Preparedness by Centre for Disaster Management, HCM RIPA, Jaipur on 22<sup>nd</sup> March 2005.
  63. Organized a students paper competition as an event of local chapter of Indian Society of Remote Sensing at Civil Engineering Department, Malaviya National Institute of Technology, Jaipur on 19<sup>th</sup> Dec. 2004.
  64. Delivered two expert lectures on “Aquifer Characteristics in Unconsolidated, Semi Consolidated and Consolidated Formations” during Advanced Training Programme on Water Resources Development and Management for NABARD Officers from 3<sup>rd</sup>-7<sup>th</sup> Nov. 2004 at BITS, Pilani.
  65. Workshop on “Management Development in the Urban Water Sector”, held at ASCI Regional Office Campus, New Delhi on 31<sup>st</sup> March 2004.
  66. Coordinated ISTE Summer school on “Use of GIS for Groundwater Modeling” from 16<sup>th</sup> June to 27<sup>th</sup> June 2003 at M.N.I.T., Jaipur.
  67. Resource Personnel for two day programme on “Strategic Planning Approach to Urban Sanitation” held at ASCI, Hyderabad from 10<sup>th</sup> to 11<sup>th</sup> March 2003.
  68. Resource Personnel for one day workshop on “Soil Conservation”, held at DPIIP Unit, Tonk on 5<sup>th</sup> March 2003.
  69. Organized & coordinated for one day workshop on “Preparation of State Level Guidelines for Anicuts & Check Dams” sponsored by UNICEF Rajasthan Field Office, held at Design Centre, M.N.I.T., Jaipur on 11<sup>th</sup> Nov. 2002.
  70. Chaired session in National Seminar on “Call Centre: Techno Managerial aspect”, Malaviya National Institute of Technology, Jaipur, 29<sup>th</sup> June 2002.
  71. Resource personnel for Change Management Forum Seminar on “Capacity Building Issues in Urban Water and Sanitation: Preparing for the Challenge”, Gangtok, 27<sup>th</sup> – 28<sup>th</sup> May 2002.
  72. Resource personnel for “DPIIP-Emerging Practices” workshop held at Dr MCR HRD Institute, Hyderabad from 25<sup>th</sup> to 28<sup>th</sup> Feb. 2002.

73. Coordinator for short term course on “Irrigation Projects”, for senior level field engineers of National Bank for Agriculture and Rural Development, organised at M.R.E.C., Jaipur from 12<sup>th</sup> to 17<sup>th</sup> July 1999. Details of the program were made available on Internet by me.
  74. Coordinator for many short-term courses on “Computer Applications in Civil Engineering” for M.E. and B.E. Students of Civil Engg Dept, MREC, Jaipur.
  75. Coordinator for two short-term courses on “Computer Applications in Civil Engineering” for field engineers, organised at M.R.E.C., Jaipur from 18<sup>th</sup> to 22<sup>nd</sup> Dec. 1995 & from 2<sup>nd</sup> to 6<sup>th</sup> Jan. 1996.
  76. Resources personnel for International degree course in Environmental Technology for German students from Hochschule Bremen, Germany, for their training at Civil Engineering Dept., Malaviya Regional Engineering College, Jaipur, India 1995 onwards.
  77. Resources personnel for Workshop for the preparation of laboratory manual for computer simulation laboratory, organised by S.G.S. Institute of Technology & Science, Indore, India from 1<sup>st</sup> to 3<sup>rd</sup> Sept. 1995.
  78. Resources personnel for many I.S.T.E. Summer School specially on “Environmental Management of Urban Areas”, conducted by Civil Engineering Department, M.R.E.C., Jaipur from 26<sup>th</sup> June to 8<sup>th</sup> July 1995.
  79. Resources personnel for one day workshop on “Need Analysis for Short Term Courses” held on Nov. 11, 1995 at M.R.E.C., Jaipur.
  80. Convenor (Computer Support) for 26<sup>th</sup> ISTE convention, held at Malaviya Regional Engineering College, Jaipur from 4<sup>th</sup> to 7<sup>th</sup> Jan. 1997.
  81. Regularly delivered expert lectures for PHED for their short term courses on Ground Water Hydrology and Ground Water Pollution.
  82. Delivered 16 Expert Lectures on Internet for the IDR, Irrigation, Jaipur from 31<sup>st</sup> Aug. to 8<sup>th</sup> Sept. 1998.
  83. Delivered Expert Lecture on “Yield test of wells, capacity of well, specific capacity etc.”, in Induction Course for newly recruited Assistant Engineers of PHED in ESTI on 23<sup>rd</sup> Sept. 1998.
  84. Delivered regular Expert Lectures on “Computer Usage’s like Microsoft Windows 95, Excel, PowerPoint etc.”, in many short term courses at ESTI.
16. Details of Workshop/Conferences attended:
1. Attended and presented a research paper in International Conference on Recent Developments in Civil and Mechanical Engineering (IRDCME-23), 4<sup>th</sup> February 2023, held at Jakarta Raya, Indonesia.
  2. Attended and presented a paper in SWAT 2019 Conference, BOKU, Vienna, Austria, 17-19 July, 2019.
  3. Attended 8th Int. Conf. on Environmental Science and Technology 2016 organized by The American Academy of Science, Houston, Texas, USA, June 6-10.

4. Attended DST Lockheed Martin India Innovation Growth Programme 2015, held at Ramada Hotel, Jaipur on 24<sup>th</sup> Dec. 2014.
5. Attended State level Workshop on “IWRM: A Solution to Water Scarcity Problem in Rajasthan”, held by IGPRS at Clarks Amer, Jaipur on 2<sup>nd</sup> Sept. 2014.
6. Attended 4 days senior level training Programme on “Institution Building and Leadership” at IIM, Ahmedabad from 22<sup>nd</sup> to 25<sup>th</sup> June 2014.
7. Attended IfM, Centre for International Manufacturing, University of Cambridge UK-India workshop on Sustainable Supply Chains on 9<sup>th</sup> April 2014 at Taj Mahal Hotel, New Delhi.
8. Attended IC<sup>2</sup> Institute, University of Texas, USA - FICCI New Delhi workshop on Technology Commercialization Frameworks on 14<sup>th</sup> March 2014 at Council Room Federation House, FICCI, Tansen Marg, New Delhi.
9. Attended Indo-US International Congress-Cum-Workshop on IPR from 29<sup>th</sup> to 31<sup>st</sup> January 2014 at Amity University Campus, Noida.
10. Attended FICCI Higher Education Learning Programme at University of Illinois, Urbana-Champaign Campus, USA from 9<sup>th</sup> to 13<sup>th</sup> Dec. 2013. Extended the visit to University of Houston, Houston, USA from 16<sup>th</sup> to 17<sup>th</sup> Dec. 2013 to discuss research collaboration, student exchange, MoU between two Institute etc.
11. Global R&D summit 2013 – Destination India, organized by FICCI & DST, Government of India, The Ashok, New Delhi, 25-26 July 2013.
12. Workshop on “Science based Policy Options for Climate Change Adaption in Rajasthan”, organized by Rajasthan State Pollution Control Board and Destsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Germany, 24-25<sup>th</sup> Feb. 2011.
13. 30<sup>th</sup> EARSeL Symposium “Remote Sensing for Science, Education and Natural and Cultural Heritage”, UNESCO Headquarters, Paris, France, 31<sup>st</sup> May – 3<sup>rd</sup> June, 2010.
14. National Seminar on Water Auditing, University of Rajasthan, Jaipur, India, 18<sup>th</sup> to 20<sup>th</sup> May, 2010.
15. National Workshop on “Dugwell Recharge: Efficiency and Efficacy” organized by Central Ground Water Board, Jaipur at University of Rajasthan, March 18<sup>th</sup>, 2010.
16. Two days Seminar on “Ground Water Management and Governance”, Organized by Central Ground Water Board, Ministry of Water Res., Govt. of India, Jaipur at OTS, Jaipur, March, 9-10, 2010.
17. International Conference Map India 2010, Jan. 19-21, 2010.
18. Workshop on Water Scenario, Efficient Use and Management in Rajasthan, Organized by Central Ground Water Board, Ministry of Water Res., Govt. of India, Jaipur, March, 13-14, 2009.

19. International Conf. on Groundwater Dynamics and Global Change, University of Rajasthan, Jaipur, 19-22 March, 2008.
20. National Conference on “Hydraulics and Water Resources” on Dec. 21-22, 2007 at SVNIT, Surat.
21. National Seminar on “Wetlands and its Conservation: Strategies and Policy Options with Special Reference to Rajasthan” on 3<sup>rd</sup>-4<sup>th</sup> Oct. 2007 at Social Policy Research Institute, Jaipur.
22. Three days, 2<sup>nd</sup> Action Planning Forum for the Indo-US Collaboration for Engineering Education (IUCCE), held at Washington DC. Aug 29 to 31, 2007.
23. One Day TEQIP and CEP Workshop on “Learning Theory and Support Vector Machines”. Organized at MNIT, Jaipur. 28<sup>th</sup> May 2007.
24. Workshop on “Intellectual Property Rights” under TEQIP. Organized at MNIT, Jaipur. 26<sup>th</sup> -27<sup>th</sup> May 2007.
25. Workshop on “Academic Exchange Programme” under networking activity of TEQIP. Organized at MNIT, Jaipur. 12-13<sup>th</sup> April 2007.
26. Conference on “Multi-Core technologies and Platforms: A Roadmap for India Academia.” Organized by MNIT, Jaipur and Intel, India. Sept. 22-23, 2006.
27. International Symposium on “Desalination and Water Purification: Water Resources and their Management.” organized by Malaviya National Institute of Technology, Jaipur, March 20-21, 2006. Member of technical committee for referring work and coordinator for souvenir and proceedings.
28. Workshop under TEQIP on “Guidelines for Implementation of Reforms by States/Institutions.” organized by Malaviya National Institute of Technology, Jaipur on 10<sup>th</sup> Feb. 2006. Coordinator for seminar hall.
29. National Workshop under TEQIP on “R&D activities at NITs – Review and Planning” organized by National Institute of Technology, Karnataka, Surathkal on January 20-21, 2006.
30. 38<sup>th</sup> Annual Convention of IWWA on “Water for Life” organized by Jaipur chapter of IWWA at Birla Auditorium, Jaipur on January 6-8, 2006. Member of technical committee for referring work.
31. Symposium on Predication in Ungauged Basins for Sustainable Water Resources Planning and Management (PUBSWRPM-2004). 30<sup>th</sup> Oct. 2004, BITS, Pilani.
32. National Conf. on Integrated Sustainable Water Resource Planning and Management (ISWRPM-2003), 11<sup>th</sup> – 12<sup>th</sup> Oct. 2003, BITS, Pilani.
33. Map India 2003, International Conference on GIS, GPS, Aerial Photography and Remote Sensing, 28<sup>th</sup> to 31<sup>st</sup> Jan. 2003, New Delhi.
34. GIS India 2003, National Conference on GIS/GPS/RS/Digital Photogrammetry and CAD, Birla Auditorium, 8<sup>th</sup>- 10<sup>th</sup> Jan. 2003, Jaipur.
35. Workshop on “Information Technology in Irrigation Department”, organized by Irrigation Department, Government of India, Jaipur on 4<sup>th</sup> Jan. 2003.

36. Seminar on “GPS & Total Stations”, organized by TOPCON & BIL trading at India Habitat Centre, New Delhi on 18<sup>th</sup> Dec. 2002.
37. Earth Observation Workshops on “SARscape and ENVISAT”, held at GIS Institute, Noida from 20<sup>th</sup> to 21<sup>st</sup> Nov. 2002.
38. 2<sup>nd</sup> Asian GPS Conference 2002, held at India International Centre, New Delhi from 23<sup>rd</sup> Oct. 2002 to 25<sup>th</sup> Oct. 2002.
39. 6<sup>th</sup> Workshop as Policy Action Dialogue on “Action Plan for Implementation of National Water Policy 2002”, held at Social Policy Research Institute, 5-D, Jhalana Institutional Area, Jaipur from 25<sup>th</sup> to 26<sup>th</sup> Sept. 2002.
40. International Conference on “Waste to Energy”, organized by M.R.E.C., Jaipur from 1<sup>st</sup> March 2002 to 3<sup>rd</sup> March 2002.
41. Training Program on “Management Development for Senior Urban Public Health Officers (MDSUPHO)” during 2001. Training program comprised of following three phases
  - a) Phase I: 3 Weeks UK leg at Water Engineering Development Centre, Loughborough University, including short visit to France from 2<sup>nd</sup> July 2001 to 20<sup>th</sup> July 2001.
  - b) Phase II: One Week, India Field leg at Bangalore from 30<sup>th</sup> July 2001 to 4<sup>th</sup> Aug. 2001, where study of Bangalore Water Supply Board was conducted.
  - c) Phase III: One Week, Administrative Staff College of India, Hyderabad, from 10<sup>th</sup> Dec. 2001 to 15<sup>th</sup> Dec. 2001.
42. Workshop on “Management Development Curriculum and Course Design: Strengthening the Training Needs Analysis Process in the Urban Water and Sanitation Sector: India”, ASCI, Hyderabad, August 7-8<sup>th</sup>, 2001.
43. National Seminar on “Performance Excellence by Technical Advancement”, held at Malaviya Regional Engineering College, Jaipur, March 2002.
44. Training Workshop on “Rain Water Harvesting”, organized by Central Ground Water Board, held at O.T.S., Jaipur on 23<sup>rd</sup> Jan. 2002.
45. Training Workshop on “Fluoride/Fluorosis And Draught Mitigation”, held at Design Centre, M.R.E.C., Jaipur on 4<sup>th</sup> March 2001.
46. Workshop on “Educational Utilization of Indian Standards”, held at Design Centre, Malaviya Regional Engineering College, Jaipur from 23<sup>th</sup> to 24<sup>th</sup> December 1999.
47. Training Course on “IBM – DB2 Fundamentals, Administration and Programming”, being organised by Singa Lab., IBM Singapore at Design Centre, Malaviya Regional Engineering College from 19<sup>th</sup> Oct. to 25<sup>th</sup> Oct. 1998.
48. Training Course on “Project Hydrology”, Sponsored by Dam Safety Organisation, Irrigation Department, Jaipur, Rajasthan from 19<sup>th</sup> to 23<sup>rd</sup> May 1998.

49. Workshop on “Logical Framework Approach for Integrated Water Resources Management for State of Rajasthan”, held at Yojna Bhawan, Jaipur from 24<sup>th</sup> to 26<sup>th</sup> March 1998. Worked as the member of core group for LFA (Logical Framework Approach) for Problem of Declining Ground Water Table.
  50. Workshop on “Independent Learning” under the Indo-U.K REC’s project, held at M.A.C.T., Bhopal from 21<sup>st</sup> to 25<sup>th</sup> July 1997.
  51. Developers Days conference on “Microsoft Visual Studio 97” held at hotel Taj Place, New Delhi on 7<sup>th</sup> April 1997.
  52. Workshop on “Educational Technology and Staff Development” under the Indo-U.K REC’s project, held at M.R. Engrg. College, Jaipur from 16<sup>th</sup> to 24<sup>th</sup> July 1996.
  53. NNRMS training course on “Remote Sensing Applications to Water Resources” held from 20<sup>th</sup> May to 15<sup>th</sup> June 1996 at Remote Sensing & Photogrammetry Engrg. Section, Dept. of Civil Engrg., University of Roorkee, Roorkee.
  54. AICTE Video Teleteaching Course, organised by I.I.T. Delhi, on “Innovative Teaching Methodology for Higher order learning” from 25<sup>th</sup> to 29<sup>th</sup> March 1996.
  55. Short term course on “Computational Hydraulics” held from 17<sup>th</sup> June to 2<sup>nd</sup> July 1991 at University of Roorkee, Roorkee.
  56. Workshop on “Water Quality Modelling” held from 7<sup>th</sup> to 11<sup>th</sup> Oct. 1991 at National Institute of Hydrology, Roorkee.
  57. Workshop on “Remote Sensing Applications in Hydrology” held from 6<sup>th</sup> to 10<sup>th</sup> Feb. 1989 at National Institute of Hydrology, Roorkee.
17. Details of Internet online homepage/membership of mailing lists etc.
1. Maintain self home page on Internet server at following URL  
<http://rohitgoyal.4t.com/default.htm>
  2. Active member of many Internet - International research oriented mailing lists.
18. Consultancy Projects:
1. Principal Investigator for project on “Environmental Damage Assessment of Dantli-Siroli and Kanota-Hardhyanpura Hills”, from Jaipur Development Authority from July 2020 to March 2021. (Project amount: Rs. 7.08 lacs)
  2. Principal Investigator for project on “Study of impact of hazardous waste landfill facility on ground water at Balotra and Udaipur, Rajasthan” from M/s. Gaurang Environment Solutions Jaipur from Dec. 2019 to March 2021. (Project amount: Rs. 7.08 lacs)
  3. Principal Investigator for project on “Preparation of Action Plan for Critically Polluted Industrial Clusters of Pali and Jodhpur” from Rajasthan State Pollution Control Board, Jaipur from April 2019 to March 2021. (Project amount: Rs. 14.16 lacs)

4. Principal Investigator for project on “Development of Rejuvenation action plan for Banas and Chambal Rivers”, from RSPCB Jaipur, December 2018 to January 2019 (Rs. 22.5 lacs)
5. Principal Investigator for project on “Study of Ground Water Quality for Bhiwadi Area” from RSPCB, Jaipur, April 2017 to November 2018 (Rs. 11.5 lacs)
6. Principal Investigator for Recuritment Exam for Engineering and Scientist posts of Rajasthan State Pollution Control Board, Jaipur from RSPCB, Jaipur, July 2016 – April 2017 (Rs. 22.5 lacs)
7. Principal Investigator for Recuritment Exam for Junior Engineer, P.W.D, Government of Daman & Diu from P.W.D., Daman, July 2015 – May 2016 (Rs. 21 lacs)
8. Member for consultancy project on “Study of Water and Sediments at Water Treatment Plant, Bisalpur Dam” from M/s. Degremont Ltd., New Delhi, July 2014 – Sept. 2014 (Rs. 7.0 lacs)
9. Principal Investigator for consultancy project on “Preparation of an Integrated Water Resources Management Plan for Khushkhera – Bhiwadi – Neemrana Investment Region”, from Water Business Group, CH2M HILL (India) Pvt. Ltd., Noida, March 2014 – May 2017. (Rs. 9.38 lacs)
10. Member for “Monitoring and Evaluation for Renovation/ Upgradation of Facilities under World Bank Assisted, Rajasthan Health System Development Project.” Consultancy Project by RHSDP, Govt. of Rajasthan, Jaipur, April 2007-July 2008. (Rs. 10.0 lacs).
11. Principal Investigator for consultancy project on “Checking of Design of Storm Water Drain Amanishah Ka Nallah.” by JDA, Jaipur, Jan to Jun. 2007. (Rs. 28,000/-).
12. Team Member for “Quality Assurance of Construction of Road and CD Work at IID Centre Bayana.” Consultancy Project of RIICO Industrial. March, 2006 onwards (Rs. 20,000/- Approx.)
13. Sector Specialist/Advisor for Yamuna Action Plan under the Post Evaluation Data Collection Survey (PEDCS) 2004 on JBIC-OPMAC financed projects in India, Sept.-Dec. 2004. (Rs. 9.6 Lacs).
14. Team Member for “Limited External Environmental Audit for MP-DPIP.” Consultancy project by DPIP, MP, 2004 (Rs. 3.0 Lacs).
15. Team Member for preparing Manual for “Planning, Designing, Construction, Operation and Maintenance of Anicut/Check Dam”. UNICEF Office for Rajasthan, Jaipur Jan. 2005 (Rs. 1.0 Lakh).
16. Coordinator for “State Level Guidelines for Planning, Design, Construction and Maintenance of Anicuts & Check Dams”, UNICEF Rajasthan Field Office, Jaipur Nov. 2002 (Rs. 30,000.00).
17. Team member for “Environmental Assessment & Monitoring of DPIP Project”, consultancy project by Government of Rajasthan, Jaipur, 2000-2007 (Rs. 40.0 Lacs).

18. Team member for consultancy project as “Environmental Specialist” for MIS Development of Pollution Control Board, Rajasthan, Jan.-March 2002 (Rs. 50,000.00).
  19. Chief Coordinator for “Checking the Design of Effluent Disposal Scheme at Bhiwadi”, consultancy project by RIICO, Bhiwadi, July 1996.
  20. “Survey project along national highways near Jaipur city” project of Jaipur Development Authority, Jaipur, June-July 1996.
  21. “Quality Assurance project for Pali By-Pass, National Highway No. 14” project of T.C.I. Infrastructural Ltd., Jaipur, May-June 1997.
  22. “Revalidation of NC Habitations, Rajiv Gandhi National Water Drinking Mission, Ministry of Rural Dev.” project of P.H.E.D., Jaipur, May-June 1997.
  23. “Yamuna Water Irrigation Project – Gurgaon Canal, Project Survey and Preparation of Project Report”, NGO, Institute of Sustainable Development, Tonk, June-July 1998.
  24. “Design of Toe Drain for Rehabilitation of Earthen Dam, Galwa” project of Irrigation Division, Tonk, March 1997.
  25. “Construction of Compound Wall, Drainage facilities and Main gate at Food Storage Depot”, Food Corporation of India, Bharatpur, Feb.-April 1997.
  26. “Checking the Design of R.C.C. Water Storage Tank”, About 10 such tanks from various governmental/private organisations.
  27. Regularly doing testing work at Hydraulics, Transportation and Environmental Engineering Labs.
19. Extra Curriculum Activities: Apart from reading my other interests are golf and music. I am member of Rambagh Golf Club and Officers club (office in O.T.S., Jaipur)
  20. Knowledge of Computers: Computer Programming in C, C++, Visual C++, ASP.Net, C#, Java Languages and worked with other software such as AutoCAD Land Development Desktop, Map, ArcGIS, Geomedia Professional, GMS, WMS, ERMapper, Erdas Imaging, Modflow, MS Office, Surfer, Lindo, Photoshop, Coral Draw, DB2, Linux, Windows NT/2000/XP, Windows 2000 server administration.