

Bio-Data

DR. LAXMIKANT YADU

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Raipur, C.G. (India) -492001



EDUCATION QUALIFICATION:

Degree	Institute	Board/University	Year of Passing	Grade/Percentage
Ph.D (Doctor of Philosophy)	National Institute of Technology Raipur, G.E. Road Raipur http://www.nitr.ac.in	National Institute of Technology Raipur, G.E. Road Raipur	7 th Nov. 2014	-
Master's (M.Tech. in Geotechnical Engineering)	Indian Institute of Technology (IIT), Delhi, India http://www.iitd.ac.in	Indian Institute of Technology, Delhi, India	2005	7.95 (Scale of 10)
Bachelor's (B.E. in Civil Engineering)	Government Engineering College (GEC), Raipur, Now known as National Institute of Technology (NIT), Raipur, Chhattisgarh, India http://www.nitr.ac.in	Pt. Ravi Shankar Shukla University, Raipur, Chhattisgarh, India	2001	72.12
Higher Secondary Examination (12 th Standard)	Saraswati Higher Secondary (S.H.S.) School, Bagbahara, Chhattisgarh, India	Board of Secondary Education, Bhopal, Madhya Pradesh, (M. P. Board), India	1996	73.55
High School Examination (10 th Standard)	S.H.S. School, Bagbahara, Chhattisgarh, India	M. P. Board, India	1994	87.07

PAPER PUBLISHED IN INTERNATIONAL / NATIONAL JOURNALS

1. **Yadu, L.K.**, Tripathi, R.K., and Singh, D.V. (2011). "Comparison of Fly Ash and Rice Husk Ash Stabilized Black Cotton Soil," International Journal of Earth Sciences and Engineering, Volume 04, No. 06 SPL, pp 42-45. (ISSN 0974-5904). (Scopus Indexed)

2. Singh D.V., Reddy, S.K., and **Yadu, L.K.** (2011). “Moisture and Compaction Based Statistical Model for Estimating CBR of Fine Grained Subgrade Soils,” *International Journal of Earth Sciences and Engineering*, Volume 04, No. 06 SPL, pp 100-103. (ISSN 0974-5904). *Scopus Journal Rating (SJR) 0.103; CSIR-NISCAIR, INDIA Impact Factor 0.042; Indexed in- Scopus Compendex and Geobase (products hosted on Engineering Village) Elsevier, Amsterdam, publishing by CAFET-INNOVA Technical Society (CITS), Hyderabad, INDIA. (Scopus indexed)*
3. **Yadu, L.K.**, Tripathi, R.K., and Singh, D.V. (2011). “Laboratory Performance Evaluation of Stabilized Black Cotton Soil with Rice Husk Ash,” *Journal of Chhattisgarh Swami Vivekanand Technical University Bhilai*, Volume 4, No. 1, pp 50-55. (ISSN 0974-8725).
4. **Yadu L.K.** and Tripathi R.K. (2013). “Stabilization of Soft Soil with Granulated Blast Furnace Slag and Fly Ash” *International Journal of Research, Engineering and Technology*, Volume 2, Issue 2, pp115-119. (ISSN: 2319-1163, available online at <http://www.ijret.org/>)
5. **Yadu L.K.** and Tripathi R.K. (2013). “Effectiveness of Granulated Blast Furnace Slag over Sand as Overlay for the Stabilization of Soft Clay” *International Journal of Advanced Technology in Civil Engineering*, Volume-2, Issue-2, pp 22-27. (ISSN: 2231 –5721, Available online at http://interscience.in/ijatce_vol2Iss2.html), http://interscience.in/IJATCE_Vol2Iss2/32-37.pdf
6. VivekVerma and Yadu L.K.(2014). “Response of circular footing by varying the vertical spacing of reinforcement resting on structural fill.” *International Journal of Innovative Research in Science Engineering and Technology*, Volume-3, Issue-9, pp 16294-16299. (ISSN: 2319 –8753).
7. Yadu L.K. and Tripathi R.K. (2015). “Response of Circular Footing on New Key Engineering Material - Granulated Blast Furnace Slag as Structural Fill” *International Journal of Advanced Materials Research*, Trans Tech Publications, Switzerland, Vol 1119, pp 726-730.(ISSN 1662-8985)
(doi:10.4028/www.scientific.net/AMR.1119.726).
8. Ansu Thomas, R. K. Tripathi, L. K .Yadu (2016), “Variation in shear modulus of enzyme treated soil under cyclic loading”, *Geotechnical Special Publication, GeoChina 2016 American Society of Civil Engineers* , Behavior of Geomaterials and Foundations for Civil Infrastructure Applications: pp. 88-95 doi: 10.1061/9780784480021.012
9. Deepak RanjanRath, ManikantVerma, L.K.Yadu (2016) “Application of SCS-CN method in Sheonath basin”, *International Journal of Scientific Progress and Research* –(Accepted with fee)
10. Ansu Thomas, R. K. Tripathi, L. K .Yadu (2016), “Effect of Enzymes on the Unconfined Compressive Strength of Soil”, *International Journal of Applied Engineering Research*, Vol.11 No.10. (ISSN 0973-4562), (**Scopus Indexed**)
11. Thomas A., Tripathi R.K. and Yadu L.K. (2016) “Soil Stabilisation using Terrasil”, *International Journal of Earth Sciences and Engineering*, Vol. 09 No.02, (ISSN 0974-5904) (**Scopus Indexed**)

12. Mani Kant Verma, Dr. M. K. Verma, Dr. L.K. Yadu, Meena Murmu, "Calibration and Sensitivity analysis of a Hydrological Model for Seonath River Basin, Chhattisgarh, India", submitted to IJAER Scopus Indexed Journal (**under review**).
13. Mani Kant Verma, M. K. Verma, L.K. Yadu, Meena Murmu (2016), "Drought Analysis in the Seonath River Basin Using Reconnaissance Drought Index and Standardised Precipitation Index", International Journal of Civil Engineering & Technology (IJCIET) Volume 07, Issue 6: 714-719 (ISSN 0976-6308) (**Scopus Index with Fee**).
14. Verma, M.K., Verma, M.K., Yadu, L.K. and Murmu Meena. A Study of Climate Change Impact on Precipitation of Sheonath River Basin. *Indian Journal of Science and Technology*, Vol 10(11), DOI: 10.17485/ijst/2017/v10i11/104361, March 2017. (**Scopus Index with Fee**). ISSN 0974-5645
15. Verma, M.K., Verma, M.K., Yadu, L.K. and Murmu Meena. A study on Calibration of a Hydrological Model and Sensitivity analysis of its parameters: A case study of a Seonath River Basin, Chhattisgarh, India. *Current Science Journal*. (under 2nd review).
16. Ansu Thomas, R. K. Tripathi, L. K. Yadu (2018), "A Laboratory Investigation of Soil Stabilisation using Enzyme and Alkali Activated Ground Granulated Blast Furnace Slag", Arabian Journal for Science and Engineering. <https://doi.org/10.1007/s13369-017-3033-x> (**SCI**)
17. Rajak, T. K., Yadu, L., Chouksey, S. K., & Dewangan, P. K. (2018). "Stability analysis of mine overburden dump stabilized with fly ash". *International Journal of Geotechnical Engineering*, pp., 1-11. <https://doi.org/10.1080/19386362.2018.1503780>. ISSN 1939-7879
18. Bajaj P., Yadu L.K. and Chouksey S.K. (2018). "Study on vertical and batter piles subjected to lateral loads in different non-cohesive sub-soil conditions" *International Journal of Geotechnical Engineering*, Taylor & Francis. <https://doi.org/10.1080/19386362.2018.1564181>. ISSN 1939-7879
19. Ansu Thomas, R. K. Tripathi, L. K. Yadu (2019), "Application of Taguchi Method for Optimization of Various Factors in Improving the Shear Modulus of Enzyme Treated Soil", **National Academy Science Letters (SCLE)**. *Accepted (SCI-E) on 5th August 2019*. ISSN 2250-1754
20. Ansu Thomas, R. K. Tripathi, L. K. Yadu (2019), "Alkali-activated GGBS and Enzyme on the swelling properties of sulfate bearing soil", *Geomechanics and Engineering- An International Journal, Technopress*. *Accepted (SCI-E) on 25th August 2019*. ISSN 2005-307X Impact factor 2.594.
21. Rajak, T. K., Yadu, L., Chouksey, S. K. (2019). "Strength Characteristics and Stability Analysis of Ground Granulated Blast Furnace Slag (GGBFS) Stabilized Coal Mine Overburden-Pond Ash Mix" *Geotechnical and Geological Engineering - An International Journal Springer* ISSN 1573-1529 Accepted (ESCI) on 5th September 2019.

PAPER PUBLISHED IN GEOTECHNICAL SPECIAL PUBLICAION-ASCE

1. Yadu L.K. and Tripathi R.K. (2014). "Effect of Depth and Number of Layers of Reinforcement on Bearing Capacity Ratio of Strip Footing Resting on Granulated

- Blast Furnace Slag Reinforced with Geogrid” in Geo-Congress 2014: Geo-characterization and modeling for sustainability, *Geotechnical Special Publication No. 234, ASCE pp 3605-3614*
2. Tripathi R.K. and Yadu L.K. (2014). “Effect on Bearing Capacity Ratio of Strip Footing for Various Granular Fill Thickness and Number of Geogrid Layers in Granular Fill Overlay on Soft Soil ” in Geo-Congress 2014: Geo-characterization and modeling for sustainability, *Geotechnical Special Publication No. 234, ASCE pp 2503-2512*.
 3. Ansu Thomas, R. K. Tripathi, L. K. Yadu (2016), “Variation in shear modulus of enzyme treated soil under cyclic loading”, *Geotechnical Special Publication, GeoChina 2016 American Society of Civil Engineers* , Behavior of Geomaterials and Foundations for Civil Infrastructure Applications: pp. 88-95 doi: 10.1061/9780784480021.012.

PAPER PUBLISHED IN PROCEEDIA ENGINEERING-ELSEVIER

1. **Yadu L.K.**, Tripathi, R.K. (2012). “Effects of Granulated Blast Furnace Slag in the Engineering Behavior of Stabilized Soft Soil” Elsevier Procedia Engineering 51(2013)125-131.(ISSN: 1877-7058) (Scopus Indexed)
2. Yadu L.K. and Tripathi R.K. (2013). “Effect of the Length of Geogrid Layers in the Bearing Capacity Ratio of Geogrid Reinforced Granular Fill-Soft Subgrade Soil System” Procedia - Social and Behavioral Sciences, Elsevier, Volume 104, pp 225-234. (ISSN: 1877-0428). (Scopus Indexed)
3. Variation in Damping Ratio of Enzyme Treated Soil, Special Section on: Current Research Topics in Power, Nuclear and Fuel Energy, SP-CRTPNFE 2016, from the International Conference on Recent Trends in Engineering, Science and Technology 2016, 1 June 2016, Hyderabad, India, pp 8-13 (**Conference / Elsevier Energy Procedia**)

PAPER PUBLISHED IN INTERNATIONAL / NATIONAL CONFERENCES

1. **Yadu, L. K.**, and Shahu, J. T. (2007). “Analysis of Gravity Dam Foundation with Shear Seam and Remedial Measure,” Proceedings of National Conference on Civil Engineering Advancement and Challenges (CEAC-2007), M. M. Engineering, College, Ambala, Haryana, India, March 9-11, pp 126-131.
2. **Yadu, L. K.**, and Shahu, J. T. (2007). “Gravity Dam Foundation Analysis with Shear Seam and Concrete Pile as a Remedial Measure,” Proceedings of National Conference on Emerging Technology and Developments in Civil Engineering, Government College of Engineering, Amravati, Maharashtra, India, March 22-23, pp VII-86-VII-92.
3. **Yadu, L. K.** (2007). “Analysis of Gravity Dam Foundation With Shear Seam – A Parametric Study,” Proceedings of National Conference on Advances and Innovations in Civil Engineering, MepcoSchlenk Engineering College, Sivakasi, Tamilnadu, India, March 24, pp 20-23.
4. Singh, D.V., Reddy, K.S., **Yadu, L.K.** (2010). “Characterization of Fine Grained Subgrade Soils for Pavement Design,” Proceedings of International Conference on Development of Road Transportation, Department of Civil Engineering,

- National Institute of Technology, Rourkela, Orissa, India, October 08-10, pp 367-375.
5. **Yadu, L.K.**, Singh, D.V., and Tripathi, R.K. (2011). “Strength Characteristics of Rice Husk Ash Stabilized Black Cotton Soil,” Proceedings of International Conference on Advances in Materials and Techniques for Infrastructure Development (AMTID 2011), Department of Civil Engineering, National Institute of Technology, Calicut, Kerla, India, September 28-30, Paper No. T022.
 6. **Yadu, L.K.**, Tripathi, R.K., and Patel, A. (2011). “Smart Building and Photovoltaic Based Cooling System,” Proceedings of 27th National Convention of Civil Engineers and National Seminar on Integrated Development of Towns as Growth Centers, The Institution of Engineers (India) Chhattisgarh State Centre, Raipur in Association with National Institute of Technology Raipur, CG, India, October 15-16, pp 150-153.
 7. **Yadu L.K.**, Tripathi, R.K. (2012). “Potential of Disposed Jute Bags for Sustainable Civil Construction Works in Chhattisgarh State” National conference on Role of Science and Technology for Sustainable Development of Chhattisgarh, Shri Shankracharya Technical Campus Junwani, Bhilai, Chhattisgarh, India, January 25-26.
 8. **Yadu L.K.**, Tripathi, R.K. (2013). “Effectiveness of Granulated Blast Furnace Slag over Sand as Overlay for the Stabilization of Soft Clay”. *International Conference on Advances in engineering and Technology Convergence (AETC) Organised by Interscience Research Network, at Bangkok Thailand on 28th April 2013, pp 40-45. (ISBN No. 978-93-82208-89-1). Availbale online at www.irnetexplore.ac.in. (Received Young Investigator Award for this paper).* **(Published in the Journal of IJATCE)**
 9. Tripathi R.K. and **Yadu L.K.** (2013). “Bearing Capacity of Square Footing on Soft Soil Stabilized with Rice Husk Ash – An Experimental Study”. International Conference on Emerging Trends in Engineering and Technology (ICETET'2013) Dec. 7-8, 2013 Patong Beach, Phuket (Thailand).
 10. **Yadu L.K.** and Tripathi R.K. (2015). “Bearing Capacity of Circular Footing on Geogrid Reinforced Granular Blast Furnace Slag”. Geosynthetics 2015, Advances and Innovations shaping Geotechnical, Civil and Geo-environmental Community, Feb 15-18, 2015, Portland OR, USA. (ACCEPTED) **Could not visit and presented.**
 11. **Yadu L.K.** and Tripathi R.K. (2015). “Response of Circular Footing on New Key Engineering Material - Granulated Blast Furnace Slag as Structural Fill” 5th International Conference on Key Engineering Materials 2015 (ICKEM 2015), March 21-23, 2015, Singapore.
 12. LaxmikantYadu, Pankaj Bajaj and Rajesh Kumar Tripathi (2016) “Bearing Capacity of Circular Footing on Geogrid-Reinforced Granulated Blast Furnace Slag” Indian Geotechnical Conference 15-17 December 2016, IIT Madras, Chennai, India (Accepted).
 13. Tarun Kumar Rajak, LaxmikantYadu, Sujit Kumar Pal (2016) “Analysis of Slope Stability of Fly Ash Stabilized Soil Slope” Indian Geotechnical Conference 15-17 December 2016, IIT Madras, Chennai, India (Accepted).

14. Pankaj, LaxmikantYadu (2016), "Experimental study of vertical and batter piles in loose sand under lateral loads" International Geotechnical Engineering Conference on Sustainability in Geotechnical Engineering Practices and Related Urban Issues, September 23-24, 2016, Mumbai, India.
15. Tarun Kumar Rajak, LaxmikantYadu (2016), "Stability Analysis of Lime Stabilized Soil Slope" International Geotechnical Engineering Conference on Sustainability in Geotechnical Engineering Practices and Related Urban Issues, September 23-24, 2016, Mumbai, India.
16. Ansu Thomas, R. K. Tripathi, LaxmikantYadu (2016), "Effect of GBS on the UCS and Shear modulus of soil" International Geotechnical Engineering Conference on Sustainability in Geotechnical Engineering Practices and Related Urban Issues, September 23-24, 2016, Mumbai, India.
17. Ansu Thomas, R. K. Tripathi, LaxmikantYadu (2016), "Variation in Damping Ratio of Enzyme Treated Soil, Special Section on: Current Research Topics in Power, Nuclear and Fuel Energy, SP-CRTPNFE 2016, from the International Conference on Recent Trends in Engineering, Science and Technology 2016, 1 June 2016, Hyderabad, India, pp 8-13 (**Conference / Elsevier Energy Procedia**)
18. Deepak RanjanRath, Mani Kant Verma, LaxmikantYadu, abyasachi Swain, Saran Aadhar(2016), "Hydrological Modelling through SWAT: Pros and Cons" National conference on water Resource and Hydro Power(WRHP) organized by UPES and IIT Roorkee, June 17-18, 2016.
19. LaxmikantYadu (2016). "Statistical Analysis of Strength Property of Soil", International Conference on "Engineering & Technology, Computer, Basic and Applied Sciences"- ECBA-2016 at Dubai from June 10-12, 2016.
20. Verma, M.K., Verma, M.K., Yadu, L.K. and MurmuMeena (2017). Statistical Downscaling of GCM Data and Analysis of Trend of Predicted Data for Seonath River Basin, ICACEC 2017, The World Academy of Research in Science & Engineering, Hongkong, during January 16-17, 2017.
21. Mani Kant Verma, Dr. M. K. Verma, MokshdharMeshram, Dr. L.K. Yadu, (2016) "Impact of Climate Change on Precipitation of Kwardha Station in Sheonath River Basin", National Conference on Water Resources and Hydropower being held during 17th -18th June, 2016 at University of Petroleum and Energy Studies, Dehradun.
22. Pankaj Bajaj,LaxmikantYadu, Sandeep Kumar Choukseyand RenuPremjani (2017) "Experimental Study of Vertical and Batter Pile groups under LateralLoads in sand" Indian Geotechnical Conference 14-16 December 2017, IIT Gowahati, GeoNest, India.
23. Tarun Kumar Rajak, LaxmikantYadu, Sandeep Kumar Chouksey and Sujit Kumar Pal (2017) "Strength Characteristics of Fly Ash Stabilized Soil Embankment and Stability Analysis Using Numerical Modelling" Indian Geotechnical Conference 14-16 December 2017, IIT Gowahati, GeoNest, India.
24. Tarun Kumar Rajak, LaxmikantYadu, Sandeep Kumar Chouksey and Sujit Kumar Pal (2018) "Stability Analysis Of Soil Slope Stabilized With Fly Ash and

- Lime”International Conference on “Advances in Concrete, Structural, & Geotechnical Engineering ” during 26 - 28th February 2017 at BITS Pilani, India.
25. Pankaj Bajaj, Laxmikant Yadu, Sandeep Kumar Chouksey (2019) “Numerical and Experimental Study of Laterally Loaded Piles in Sandy Soil Conditions” Symposium on Recent Advances in Sustainable Geotechnics, IGS Kanpur Local Chapter in collaboration with Indian Geotechnical Society (IGS), on 17th to 20th October 2019 at Department of Civil Engineering, IIT Kanpur. (Accepted)
26. Renu Premjani, Laxmikant Yadu (2019) “A comparative study of vertical and batter piles under lateral loading conditions” Symposium on Recent Advances in Sustainable Geotechnics, IGS Kanpur Local Chapter in collaboration with Indian Geotechnical Society (IGS), on 17th to 20th October 2019 at Department of Civil Engineering, IIT Kanpur. (Accepted)

PROJECT SUPERVISION:

PhD Supervision:

Sl. No.	Candidate Name	Proposed Topic	Status/ Joint-Supervisors
1	Mr. IshtiyaqAhamd (Entry 2010)	Integrated river basin planning & management: Sheonath basin in Chhattisgarh state	Awarded in 2016 / Dr. M. K. Verma
2	Mr. ManikantVerma (Entry 2013)	Assessing the impact of climate variability and land use change on hydrological processes of Seonath river basin	Awarded in 2018 / Dr. M. K. Verma Dr MeenaMurmu
3	Ms. Ansu Thomas (Entry 2014)	Soil Stabilisation using non-traditional stabiliser	Awarded in 2018 / Dr. R. K. Tripathi
4	Mrs. Shobha Maliwal (Entry 2012)	Flood control measures by integrated operation of multi reservoir system: Mahanadi reservoir project complex	Ongoing / Dr. M. K. Verma
5.	Mr. Pankaj Bajaj (Entry 2015)	Study on vertical and batter piles subjected to lateral loading	Ongoing / Dr. S Chouksey
6	Mr. Tarun Kumar Rajak (Entry 2015)	Slope stability of dump materials	Ongoing/ Dr S Chouksey
7	Ms RenuPremjani (Entry 2018)	Study on piles of various subsoil condition	Ongoing / sole
8	Mr Atul D.	Study on dump management by unmanned	Ongoing /

	Gautam (Entry 2018)	aerial vehicle on mines for geo-environmental solutions	sole
9	Srinivasan (Entry 2018)	Study of Resilient modulus on soft subgrade	Ongoing / Dr Sunny Deol

M Tech Supervision:

Sl. No.	Candidate Name	Topic	Joint-Supervisors
1	Ms. Deepali Tamboli (R.N.14244004) (2016) at NIT Raipur	Estimation of Soil Erosion for Sheonath River Basin by Using RUSLE and GIS	Completed / Sole
2	Mr. Deepak RanjanRath (R.N. 14244002) (2016) at NIT Raipur	Application of Hydrological Modelling of Upper Sheonath Basin for Estimation of Runoff	Completed/ Prof ManikantVerma
3	Mr. Pranav S Sankapal R. N. 18244009 at NIT Raipur	Estimation of seepage through Earthen dam.	Ongoing / Sole
4	Mr. Vikas Dubey R. N. 18244012 at NIT Raipur	Mapping of Proposed Dam at Gariyabad District	Ongoing / Sole

SPONSORED R&D PROJECTS:

- “Improving soft subgrade for the construction of low volume roads using locally available materials” Sponsored by Chhattisgarh Council of Science and Technology, Government of Chhattisgarh for two years of Amount 2.0 Lakhs. (on going – Awarded in March 2012).
- “Construction of Low Volume Roads on Soft Subgrade Soil Imporved by Locally Available Marginal Materials” Funded by Human Settlement Managment Institute - Housing and Urban Development Corporation (HSMI-HUDCO), New Delhi for two year of Amount 25.0 Lakhs (on going – Awarded in Feb 2014).
- “Performance Evaluation of some Selected PMGSY Roads sections in the state of Chhattisgarh” Funded by National Rural Road Development Agency, New Delhi of amount 41.89 Lakhs (Ongoing- awarded in 15th October 2015)

ACHIVEMENTS AND SCHOLARSHIP:

- Secretary of Indian Geotechnical Society Raipur Chapter from 8th July 2019 for two years term.
- Young Investigator Award by Interscience Research Network for Paper entitled “Effectiveness of Granulated Blast Furnace Slag over Sand as Overlay for the Stabilization of Soft Clay” at Bangkok, Thailand, on 28th April 2013.
- Selected in State Engineering Services 2008 conducted by Chhattisgarh Public Service Commission for the post of Assistant Engineer (Civil) and Posted in Rural Engineering Services, Government of Chhattisgarh.
- Selected for the post of Assistant Engineer (Civil)-2008 at Chhattisgarh State Electricity Board and posted at Jagdalpur, Chhattisgarh State Power Transmission Company Limited.
- Appeared in the interview twice on Engineering Services Examination 2007 and 2008 conducted by Union Public Service Commission.
- Awarded Merit Scholarship during M. Tech. (Graduate Study) in IIT Delhi, India from Ministry of Human Resources Development (MHRD), India.
- Qualified and secured position in top 9% of total appeared candidates in Graduate Aptitude Test in Engineering (GATE) Examination conducted at National Level in India.
- Merit Position (24th Rank) in High School Examination at State Level.
- Awarded Ideal & Best Student Award consecutively for Two years at School Level.
- Given Merit Scholarship for outstanding performance during school education from class 8th standard to class 12th standard.

VISIT ABROAD:

Thailand: Bangkok, Pataya

During 27th April to 30th April 2013.

Singapore:

During 20th March to 24th March 2015.

Dubai:

During 9th June to 13th June 2016.

PROFESSIONAL MEMBERSHIP:

- Member of American Society of Civil Engineers [**A.M. ASCE, Member ID# 9132503**]
- Member of Geo-Institute, American Society of Civil Engineers.
- Member of International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) for the Years 2018-2021. [IND12LM-3183]
- Member of Indian Geotechnical Society, Delhi Chapter, India. [LM-3183]
- Member of Indian Roads Congress, New Delhi, India. [LM-37607]
- Member of Institution of Engineers (India) [AM099438-6]
- Member of Indian Concrete Institute [**LM-9656**]
- Member of Indian Association of Soil and Water Conservationists [**LM-1827**]
- Member of Indian Meteorological Society [**LM-2587**].
- Member of Institution of Engineering and Technology (IET) [**1100550889**].

REVIEWER

Journals:

- Reviewer of Journal of Geological Resource and Engineering, David Publishing. ISSN:2328-2193. (http://www.davidpublishing.com/journals_info.asp?jId=2119#)

- Reviewer of Geomechanics and Engineering: An International Journal.
- Reviewer of Canadian Geotechnical Journal.

INSTITUTE OUT REACH ACTIVITY

- Nominee of Vice Chancellor, Chhattisgarh Swami Technical University for Bhilai Institute of Technology Durg for Doctoral Research committee for PhD work.
- AICTE Expert Committee visit as an expert at NMDC DAV Polytechnic Old Central School Building Dantewada, Chhattisgarh for the academic year 2016-17 on 26.10.2016.
- Chaired a technical session on 25th March 2017 in the International Conference on Innovations & Sustainable Development in Sciences, Management & Technology on 25th – 26th March, 2017 atSSIPMT Raipur.
- Inspection of chhatrapatishivaji institute of technology durg for affiliation 2017-18 on 20.03.2017.
- Worked as an expert for Analysis of question paper of Assistant Engineer (Civil) Exam 2014 conducted byChhattisgarh Professional Examination Board Raipur on 06.02.2015.
- Worked as an expert for Analysis of question paper of Sub Engineer (Civil) Exam 2014 conducted byChhattisgarh Professional Examination Board Raipur on 06.02.2015.
- Worked as an Analyzer for the question paper of Sub-Engineer (Civil) panchayat &Rural development dept Exam – 2011, Exam conducted by Chhattisgarh Professional Examination Board Raipur.
- Worked as an Analyzer for the question paper of Sub-Engineer (Civil) combined exam for PWD, RES, Irrigation, Nagar Nigam for Sub Engineer (Civil) Selection Exam – 2013, Exam conducted by Chhattisgarh Professional Examination Board Raipur.
- Judge for district level science project “Land resources – use for prosperity and save for posterity” organised by Chhattisgarh science and technology parishad on 10.11.2010 at MayaramSurjan Government higher secondary school Choubey colony Raipur

EXPERT LECTURE DELIVERED:

- Delivered a lecture on “Importance of Geotechnical Laboratory and Field Test In Civil Engineering Construction Practices” on 14th March 2019 at Civil Engineering Department Government Engineering college Raipur Chhattisgarh.
- Delivered a lecture on “Importance of Geotechnical Site Investigation in Development of Infrastructure” on 12th February 2019 at Civil Engineering Department Government Engineering college Raipur Chhattisgarh.
- Delivered a lecture on “Design Aspects of Earthquake Resistant Shallow foundation” on 28th November 2018 at Civil Engineering Department O.P. Jindal Univesity Raigarh.
- Delivered a lecture on “Soil: Classification, Testing and Investigation, Technical Consideration and Implementation Arrangements” on 16.03.2016 in the Training Programme on Rural Road Maintenance to Engineer and Contractor in non RRP-

II States At RCTRC Bhawan Village Jhanjh Sector – 24 Naya Raipur scheduled from 15th March to 17th March 2017.

- Delivered a key note lecture on “Soil Investigation: Local Practices and Problems” as an expert speaker for the technical session on 25th March 2017 in the International Conference on Innovations & Sustainable Development in Sciences, Management & Technology on 25th – 26th March, 2017 atSSIPMT Raipur.
- Delivered a lecture on “Geo-environmental Challenges and Solutions” on two weeks course “Modern Geotechnical Engineering” under Global Initiative for Global Network (GIAN) programme funded by Ministry of Human Resources Development, Government of India from 21st Dec to 28th Dec 2015 at NIT Raipur on 27.12.2015.
- Delivered a lecture on “Geotechnical Investigations for various sites & Laboratory & field investigations for Construction of subgrade and granular layers using locally available material” in five days short term hands on training programme “Testing Methods in Civil Engineering Construction” under TEQIP-II at Civil Engineering Department, National Institute of Technology Raipur on 19.11.2015.
- Delivered an Expert Lecture on topic “New Trends in Geotechnical Engineering” at O.P. Jindal Institute of Technology Raigarh, Chhattisgarh, India on 1st April 2015.
- Delivered an Expert Lecture on topic “Design Aspects of Earthquake Resistant Shallow Foundation” in Training Programme on “Earthquake Resistant Building Construction Techniques and Safe Construction Practices” for the Engineers of various government department of Government of Chhattisgarh and Engineers of Public & Private Sectors on 9th March 2015 at Government Engineering College Bilaspur, Chhattisgarh, India.
- Delivered a Lecture on topic “Fly Ash: A Resource Material for Soil Stabilisation and Embankment Construction” in one day Workshop “Ash Utilization Challanges and Opportunities” on 24th February 2015 at NSPCL Bhilai Expansion Plant Bhilai, Chhattisgarh, India.
- Delivered a Lecture on topic “ Geotechnical Investigation and Foundation Types” in “Training Programme for Capacity Building of Engineers -2012” for the Engineers of Public Works Department, Government of Chhattisgarh, PWD (B&R) Division Kanker on 22nd September 2012 at ManasBhavan, Kanker, Dist-Kanker, Chhattisgarh.
- Delivered a Lecture on topic “Design Aspects of Earthquake Resistant Shallow Foundation” in a shortterm course for the Practicing Engineers of the Government Department of Government of Chhattisgarh, under National Programme for Capacity Building of Engineers in Earthquake Risk Managment funded by Ministry of Home Affairs, Government of India, on 4th May 2010 at National Institute of Technology Raipur.
- Delivered Lecture on “Radioactive Waste: The Problem and its Management” as an Expert for Academic and Industrial Participant on Hazardous Waste Management two days seminar under Ministry of Environment and Forest Department, Government of India in association with National Institute of Technology Raipur at National Institute of Technology Raipur Chhattisgarh (22nd August 2009).
- Delivered Series of Lectures on “Quality Control and Assurance of Rural Roads” for Assistant Engineer and Junior Engineer of Public Works Department (PWD)

Rajasthan State, India under Pradhan Mantri Gram Sadak Yojana (Prime Minister Village Road Scheme) Training Programme, conducted by National Rural Roads Development Authority (NRRDA), New Delhi, India at Birla Institute of Technology and Science (BITS), Pilani, Rajasthan, India (Jan - March 2006).

SHORT TERM COURSE ATTENDED:

1. One week refresher course on “Finite Element Method” Organised by Department of Mechanical Engineering, National Institute of Technology Raipur at NIT Raipur from 18-22nd June 2012.
2. Short term course on “Waste Treatment and Cleaner Technologies” held at National Institute of Technology Raipur organised by Department of Chemical Engineering during 28th May to 1st June 2012.
3. Short Course on “Finite Element Method, Constitutive Modeling and Applications” held at Indian Institute of Technology Gandhinagar during April 02-05, 2012.
4. Four Weeks Training programme under “National Programme for Capacity Building of Engineers in Earthquake Risk Management (NPCBEERM)” Conducted by Ministry of Home and National Earthquake Risk Management Department, Government of India at Civil Engineering Department, Indian Institute of Technology Kharagpur West Bengal as a Faculty of State Resources Institute (NIT Raipur) (June 08 – July 05 2009).

SEMINAR / WORKSHOP ORGANISED:

- Organized five workshop on ““Construction of Low Volume Roads on Soft Subgrade Soil Improved by Locally Available Marginal Materials” under and funded by Human Settlement Management Institute - Housing and Urban Development Corporation (HSMI-HUDCO), New Delhi at NIT Raipur from 24th September 2019 to 28th September 2019.
- Organised two weeks course “Modern Geotechnical Engineering” under Global Initiative for Global Network (GIAN) programme funded by Ministry of Human Resources Development, Government of India from 21st Dec to 28th Dec 2015 at NIT Raipur as Course Coordinator and host faculty.
- Organized five days short term hands on training programme “Testing Methods in Civil Engineering Construction” under TEQIP-II at Civil Engineering Department, National Institute of Technology Raipur from 16th November to 20th November 2015 as Coordinator.
- Organized two days workshop “Water Resources in Developing Countries: Planning and Management under TEQIP-II at Civil Engineering Department, National Institute of Technology Raipur on 27th and 28th August 2015 as organising member.
- Organized one day workshop under research project “Construction of Low Volume Roads on Soft Subgrade Soil Improved by Locally Available Marginal Materials” funded by Human Settlement Management Institute (HSMI), HUDCO New Delhi at Civil Engineering Department, National Institute of Technology Raipur in association with HSMI, HUDCO New Delhi on 14th August 2015 as Coordinator.

- Organized one day workshop “Research Schemes in DST & Recent Advances in Civil & Transportation Engineering” under TEQIP-II at Civil Engineering Department, National Institute of Technology Raipur on 1st August 2015 as Coordinator.
- Organized a Regional Educational Workshop on “Structural Engineering Solutions” organized by Civil Engineering Department, National Institute of Technology Raipur in association with Concept Tele Systems (Bentley Channel Partner) on 29th and 30th October 2012 at National Institute of Technology Raipur as Member of Organizing Committee.
- Organized a Short term course for the Practicing Engineers of the Government Department of Government of Chhattisgarh, under National Programme for Capacity Building of Engineers in Earthquake Risk Management funded by Ministry of Home Affairs, Government of India, during 3rd May to 7th May 2010 at National Institute of Technology Raipur as a Co-ordinator.
- Organized A Technical Presentation on “Birla White YunaRatan Awards – 2010 for Engineering Students and Birla White Cement Products” by Grasim Industries Limited (White Cement Divison) Raipur at National Institute of Technology Raipur, Chhattisgarh, India (4th August 2010).
- Organized A Technical Presentation on “Birla White YunaRatan Awards – 2009 for Engineering Students and Birla White Cement Products” by Grasim Industries Limited (White Cement Divison) Raipur at National Institute of Technology Raipur, Chhattisgarh, India (22nd July 2009).

SEMINAR / WORKSHOP ATTENDED:

1. Two day workshop on Sustainable Construction Materials and Agricultural Waste” organised by Department of Civil and Engineering, VNIT Nagpur on Oct 11 to Oct 12, 2015 at VNIT Nagpur.
2. One day workshop under research project “Construction of Low Volume Roads on Soft Subgrade Soil Improved by Locally Available Marginal Materials” funded by Human Settlement Management Institute (HSMI), HUDCO New Delhi at Civil Engineering Department, National Institute of Technology Raipur in association with HSMI, HUDCO New Delhi on 14th August 2015.
3. One day workshop “Research Schemes in DST & Recent Advances in Civil & Transportation Engineering” under TEQIP-II at Civil Engineering Department, National Institute of Technology Raipur on 1st August 2015.
4. Workshop on “Intellectual Property Rights (IPR)” on 4th and 5th April 2014 organised by National Institute of Technology Raipur and Chhattisgarh Council of Science and Technology, held at National Institute of Technology, Raipur.
5. Workshop on “Intellectual Property Rights (IPR)” on 4th and 5th April 2014 organised by National Institute of Technology Raipur and Chhattisgarh Council of Science and Technology, held at National Institute of Technology, Raipur.
6. Workshop on Mathematical Modelling, Chemoinformatics and Quantum Chemistry on 19th February 2013 conducted by Department of Electronics & Telecommunication and Central Computing Center, held at National Institute of Technology, Raipur.

7. Workshop on “Deployment and Collaboration of Analytical Reports & Models” on February 1, 2013 held at National Institute of Technology Raipur.
8. Regional Educational Workshop on “Structural Engineering Solutions” organized by Civil Engineering Department, National Institute of Technology Raipur in association with Concept Tele Systems (Bentley Channel Partner) on 29th and 30th October 2012 at National Institute of Technology Raipur.
9. National seminar on “Emerging Concept of Green Buildings in Chhattisgarh”, organized on 17th October, 2012 at Hotel Golden Tulip, Raipur by E-Tech Consultancy Services & Enterprises GEC Structural Consultants & Contractors.
10. All India workshop on ”Awareness of Indian Standards with Particular Reference to National Building Code (NBC) 2005” organised by The Institution of Engineers (India) Chhattisgarh State Centre, Raipur (Under the aegis of Civil Engineering Division Board IEI Kolkata) in association with Bureau of Indian Standards, New Delhi on 27th April 2012, at Raipur Chhattisgarh.
11. QIP Course – AICTE Sponsored workshop on Engineering Optimization using Matlab and Excel held at IIT Guwahati, organised by Civil and Mechanical Engineering Department during February 29 to March 2, 2012.
12. Indo – Norwegian Workshop on “Potential For Increased Use Of Mineral Wastes In Cement And Concrete” at Le Mariadian Hotel New Delhi on 20th Dec 2011, Sponserd by National Council for Cement and Building Materials and SINTEF Norway.
13. Three days 44th Annual convention of Indian Water Works Association at Shri AgrasenDham, Raipur, CG, India (7th to 9th January 2012).
14. Two days 27th National Convention of Civil Engineers and National Seminar on “Integrated Development on Town as Growth Centers”, The Institution of Engineers (India) Chhattisgarh State Centre, Raipur in Association with National Institute of Technology Raipur, CG, India, (15th and 16th October 2011).
15. One day International Seminar/workshop on “Mega Foundations-Large and Deep Foundations,” Civil Engineering Department, Indian Institute of Technology Mumbai at Indian Institute of Technology Mumbai, India. (9th September 2010).
16. Two days National Seminar on “Future Urbanization” organized by Arhitecture Department, National Institute of Technology Raipur at National Institute of Technology Raipur. (27th and 28th July 2010).
17. Two days National seminar on “Hazardous Waste Management,” under Ministry of Environment and Forest Department, Government of India in association with National Institute of Technology Raipur at National Institute of Technology Raipur Chhattisgarh. (21st and 22nd August 2009).
18. One day National Seminar/workshop on “Durability of concrete and Role of Blended Cements,” ACC Cements in Association with Civil Engineering Department, National Institute of Technology Raipur at National Institute of Technology Raipur Chhattisgarh. (29th March 2009).
19. Geosynthetics India 2004, A Seminar-Workshop, organized by IIT Delhi and Indian Geotechnical Society, Delhi chapter (October 27-30, 2004).

TEACHING EXPERIENCE:

- Currently working as an Associate Professor in Civil Engineering Department National Institute of Technology, Raipur, Chhattisgarh, India (July 2018 to till date).
- Worked as an Associate Professor & Head in Civil Engineering Department in Government Engineering College, Raipur, Chhattisgarh, India (July 2016 to 24th July 2018)). (<http://www.gecraipur.ac.in>)
- Worked as an Assistant Professor in Civil Engineering Department in National Institute of Technology, Raipur, Chhattisgarh, India (March 2009 to 11.07.2016 and taken leave for two years to join GEC Raipur as Associate Professor). (<http://www.nitr.ac.in>)
- Worked as a Lecturer in Civil Engineering Department (Geotechnical Group) in Birla Institute of Technology and Science (BITS), Pilani, Rajasthan, India (December 2005 to July 2008). (<http://www.bits-pilani.ac.in>)
- Worked as a Lecturer (Guest Faculty) in Civil Engineering Department, National Institute of Technology, Raipur, Chhattisgarh, India (Sep. 2001 to July 2003). NIT, Raipur is considered one of the most reputed Engineering Institute of India. (<http://www.nitr.ac.in>)
- Major contribution in organizing of C⁺⁺ language and AutoCAD course conducted by Canada-India Institute Industry Linkage Project in NIT, Raipur, Chhattisgarh, India (Jan. to June 2003).

FIELD EXPERIENCE:

- Worked as an Assistant Engineer (Sub-Divisional Officer) in Rural Engineering Services, Panchayat and Rural Development Department, Government of Chhattisgarh, Raipur at Project Implementation Unit (PIU), Pradhan Mantri Gram Sadak Yojana Durg, Chhattisgarh, India (July 2008 to March 2009).
- Worked as an Assistant Engineer (Sub-Divisional Officer) for Asian Development Bank funded project under Pradhan Mantri Gram Sadak Yojana (PMGSY) affiliated with National Rural Roads Development Authority (NRRDA), New Delhi, India at Project Implementation Unit (PIU) Mahasmund, Chhattisgarh, India (June 2005 to Nov. 2005).
- Involved in the testing of construction materials such as Soil, Aggregates and Concrete Cube during my tenure as Assistant Engineer in PMGSY, PIU - Mahasmund, Chhattisgarh, India (June 2005 to Nov. 2005).
- Involved in the preparation of Detail Project Report (DPR) as well as conducted various Traffic Survey during my tenure as Assistant Engineer in PMGSY, PIU - Mahasmund, Chhattisgarh, India (June 2005 to Nov. 2005).
- Involved in the Consultancy works in BITS-Pilani for determination of Soil Bearing Capacity for RCC water tank at Bhatiwara, Rajasthan, India (March 2006).
- Involved in the Consultancy works in NIT Raipur for determination of Soil Bearing Capacity by Plate Load Test at Kabirdham, Chhattisgarh, India (May 2002).

- Involved in the Consultancy works in NIT Raipur for estimation of present cost of a Risk Husk Power Generation Plant, Balouda Bazar, Raipur, Chhattisgarh, India (January 2002).
- Involved in the Consultancy works in NIT Raipur for Contouring of a plot near Raipur, Chhattisgarh, India (March 2003).

ADMINISTRATIVE EXPERIENCE:

- Professor Incharge Estate Office (Civil) at NIT Raipur from August 2018 to till date.
- Head, Department of Civil Engineering, Government Engineering College Raipur from 12th July 2016 to 24th July 2018.
- Nodal Officer (Finance) TEQIP-III Project at Government Engineering College Raipur from July 2017 to till date.
- TEQIP-II Departmental Coordinator of Civil Engineering Department, NIT Raipur, Chhattisgarh, India. (October 2013 to 4th July 2016).
- Head (Incharge) of Civil Engineering Department, NIT Raipur, Chhattisgarh, India. (June' 12th to June 30th 2013).
- Assistance to Dean (Planning and Development), NIT Raipur, Chhattisgarh, India (Sep' 2011 to till date).
- Professor-Incharge of Testing works in Civil Engineering Department, NIT, Raipur, Chhattisgarh, India (August 2010 to August 2011 and 24th September 2013 to 1st July 2016).
- Professor-Incharge of Civil Engineering Association in Civil Engineering Department, NIT, Raipur, Chhattisgarh, India (8th July' 2009 to 1st August 2013).
- Geotech Engineering Laboratory Incharge in Civil Engineering Department, NIT, Raipur, Chhattisgarh, India (8th May' 2009 to 1st July 2016).
- Member of the Anti Ranging Committee for Boy's Hostels on Wednesday and Thursday. [Institute order No./NITRR/Anti Ranging/2011/264 Raipur Dated 19.07.11].
- Member of the committee for the venue and seating arrangement in ECLECTIAK 2009 and 2010.
- Faculty Member of the Institute Technical Committee for year 2009-10 and 2010-11.
- Member of the team for investigation for Chimney collapse at Balco Nagar Polce Station Crime N0. 377/09 under section 304,34 of I.P.C. [Institute order No 370/Civil/Consultancy/2009, Raipur, Dated 07.10.2009].
- Worked as an Analyzer of the question paper for Sub-Engineer (Civil) Rural Engineering Services selection Exam 2011 conducted by Chhattisgarh Professional Examination Board Raipur (CGVYAPAM).
- Worked as an Analyzer of the question paper for Sub-Engineer (Civil) NagriyaNikay selection Exam 2010 conducted by Chhattisgarh Professional Examination Board Raipur (CGVYAPAM).

- Worked as an Analyzer of the question paper of Public Health Engineering for Sub Engineer (Civil) Selection Exam – 2010 conducted by Chhattisgarh Professional Examination Board Raipur (CGVYAPAM).
- Worked as an Analyzer of the question paper of Tribal Department, Civil Engineering Recruitment Exam-2008 conducted by Chhattisgarh Professional Examination Board Raipur (CGVYAPAM).
- Incharge of Consultancy works at Civil Engineering Group, BITS, Pilani, Rajasthan, India (July 2007 to July2008).
- Member of the Library Committee at BITS, Pilani, Rajasthan, India (July 2007 to July2008).
- Worked as Administrator Proctor for smooth conduction of BITS, Pilani Entrance Examination (BITSAT-2006) (May-June 2006).

B. Tech. (Graduate Level) Final Year Thesis:

1. **Chandrashekhar**Ogrey, Tapan Kumar Chakravarty, SagarSahu, Jwala Kant Sahu, Rajkumar Sinha and LokeshChandrakar (2009). “Improvement of Soft Subgrade Soil by Rice Husk Ash for Low Volume Roads,” for the partial fulfillment for the requirement of Pt. Ravishankar Shukla University Raipur for the award of degree of Bachelor of Technology in Civil Engineering in 2009-2010at National Institute of Technology Raipur Chhattisgarh.
2. **Sandeep** Kumar Sahu and Rahul Dev Berma (2010). “Stabilisation of soft soil using Rice Husk Ash for Rural Roads” for the partial fulfilment for the requirement of National Institute of Technology Raipur (C.G.) for the award of degree of Bachelor of Technology in Civil Engineering in 2009-2010.
3. Lawrence Kumar and Vinay Kumar (2010). “Ground Improvement and Soil Structure Interaction,” for the partial fulfilment for the requirement of National Institute of Technology Raipur (C.G.) for the award of degree of Bachelor of Technology in Civil Engineering in 2009-2010.
4. **Manvendra**Kumar Singh MayankParakh and TikeshwarVerma (2011). “Soil Stabilisation with Fly-Ash & Design of Block-Type Machine Foundation using Matlab” for the partial fulfilment for the requirement of National Institute of Technology Raipur (C.G.) for the award of degree of Bachelor of Technology in Civil Engineering in 2010-2011.
5. **Kamini** Joshi,Paridhee Agrawal and Sarita Mishra (2011). “ Stabilization of Soft Soil using Geosynthetics Material Gunny Bag,” for the partial fulfilment for the requirement of National Institute of Technology Raipur (C.G.) for the award of degree of Beachelor of Technology in Civil Engineering in 2010-2011.
6. OmprakashMeena and Saurabh Singh (2012). “Stabilisation of Soft Soil using Rice Husk Ash And Fly Ash for Low Volume Roads”for the partial fulfilment for the requirement of National Institute of Technology Raipur (C.G.) for the award of degree of Beachelor of Technology in Civil Engineering in 2011-2012.
7. **Lavanya**PushpParganihaand Rohit Bhardwaj (2012). “Granulated Blast Furnace Slag as Stabilizer of Soft Sub Grade Soil for Low Volume Roads”for the partial fulfilment for the requirement of National Institute of Technology Raipur (C.G.)

- for the award of degree of Bachelor of Technology in Civil Engineering in 2011-2012.
8. **Atul**Kumar Singh and Jai Chand Bhagat (2012). “Stabilised soil using Fly Ash and Blast Furnace Slag for Low Volume Roads”for the partial fulfilment for the requirement of National Institute of Technology Raipur (C.G.) for the award of degree of Bachelor of Technology in Civil Engineering in 2011-2012.
 9. **Abhishek Singh** (2013). “Effect of thickness on load settlement behaviour of blast furnance slag overlay on soft clay under square Footing.” at NIT Raipur.
 10. **Dharmendra**Prasad& Satish Gupta (2013). “Load settlement behaviour of reinforced granulated blast furnance slag with single layer of geogrid under circular footing:an experimental study.” at NIT Raipur.
 11. **Sunil** Kumar (2013). “Statistical analysis of soil properties & numerical modelling of granular fill.” at NIT Raipur.
 12. **Rahul Ranjan**& Rakesh Kumar Pure (2013). “Improvement of soft subgrade soil by fly ash for low volume roads” at NIT Raipur.
 13. **Ashish**Kumar Nayak, Rajendra Bairwa&Poonam Wankhede (2013). “Load settlement behaviour of stabilized soil using fly ash and rice husk ash.” at NIT Raipur.
 14. **Shruti A.**&Vivek Kumar (2014). “Study of load settlement behaviour of granulated blast furnace slag as a granular fill under circular footing.” at NIT Raipur.
 15. **Manisha**Kujur& Karan Gupta (2014). “Load-settlement behaviour of unreinforced and reinforced granulated blast furnace slag overlay on soft caly under square footing.” at NIT Raipur.
 16. **Ashish** Mittal, Akbar Khan &Vaibhav Kumar (2015). “Improvement of soft soil using stone column method.” at NIT Raipur.
 17. **Nishant**Dubey, Peeyush Ramrakhyani and Sudhanshu Ranjan(2015). “Effect on bearing capacity of unreinforced and reinforced granulated blast furnace slag overlay on soft clay slope” at NIT Raipur.
 18. **K Sourabh**, Neha Chandra (2016). “Behavior of circular footing resting on improved soft soil by stone column and unreinforced and reinforced GBFS overlay” at NIT Raipur.
 19. **Kumar**Amritesh and Vishal Kushwaha (2016). “Effect on bearing capacity of unreinforced and reinforced granulated blast furnace slag overlay on soft clay slope under square footing” at NIT Raipur.
 20. **Lokeshwari** Kanwar, Priyanka, Shruti Rani Chandrakar, Suman Patel, Ranjni Bharadwaj(2017). “Stabilisation of soil by Industrial Waste With Lime” at GEC Raipur.