# Curriculum Vitae Dr. Sandeep Kumar Chouksey

Sandeep Kumar Chouksey

**Assistant Professor** 

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## Area of Specialition

• Geotechnical Engineering

- Geoenvironmental Engineering
- Physical and Numerical Modeling
- Constitutive Modeling
- Computational Geomechanics

Education

October 2013 PhD (Geotechnical Engineering)

Indian Institute of Science, Bangalore, India

Thesis Title: Strength and Deformation Behavior of Municipal Solid Waste (MSW)

using Constitutive Modeling Approach

July 2009 MSc. (Engg) (Geotechnical Engineering)

Indian Institute of Science, Bangalore, India

Thesis Title: Analytical Models for Fiber Reinforced Soil and Municipal Solid Waste

May 2007 B.E in Civil Engineering

Government Engineering College, Bilaspur (C.G), India

## Working Experience:

- 1. Assistant Professor (Since May 2015-Present), Department of Civil Engineering, National Institute of Technology Raipur, India
- 2. Worked as Assistant Professor in CEC, Bilaspur (LNCT Group of College) from 14<sup>th</sup> March 2013 to April 2015.
- 3. International Research Staff at Department of Geotechnical Engineering and Geo-Science, Universitat Polytechnica de Catalunya, Barcelona Tech, Spain (November-December 2013).

#### Awards and Honors

- 1. Nominated as Indian Young Geotechnical Engineer to attend the 6th iYGEC6, Seoul, South Korea from 16th to 17th September 2017.
- 2. Best Theoretical Oriented Paper Award by World Environmental and Water Resources Congress 2011 ((EWRI) by ASCE).
- 3. Selected as Executive Trainee (2009) in BHEL (Bharat Heavy Electrical Limited)
- 4. UGC-GATE Fellowship, IISc Bangalore during MSc (Engg) 2007-2009
- 5. UGC-GATE Fellowship, IISc Bangalore during PhD 20010-2013
- 6. CSIR Travel Grant for attending Geo-congress 2012 Oakland, CA USA
- 7. DST Travel Grant for attending FOURTH INTERNATIONAL SYMPOSIUM ON ENERGY FROM BIOMASS AND WASTE San Servolo, Venice (Italy) 12-15 November 2012.
- 8. Institute Grant for attending FOURTH INTERNATIONAL SYMPOSIUM ON ENERGY FROM BIOMASS AND WASTE San Servolo, Venice (Italy) 12-15 November 2012.
- 9. Microsoft Research Travel Grant for attending FOURTH INTERNATIONAL SYMPOSIUM ON ENERGY FROM BIOMASS AND WASTE San Servolo, Venice (Italy) 12-15 November 2012.

#### **Invited Talks**

- 1. Strength and Deformation Behavior of Municipal Solid Waste. Department of Geotechnical Engineering and Geo-Science, Universitat Polytechnica de Catalunya, Barcelona Tech, Spain (2013).
- 2. Analytical Approach for Strength and Deformation Behavior of Municipal Solid Waste. Departamento de Ciencia e Ingeniería del Terreno y de los Materiales Escuela T.S. de Ingenieros de Caminos, University of Cantabaria, Santander, Spain.
- 3. "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 21<sup>st</sup> Dec to 28<sup>th</sup> Dec 2015 at NIT Raipur on 27.12.2015.
- 4. "Ground Improvement Techniques" for the Poor Subgrade Soil" five days short term hands on training program "Testing Methods in Civil Engineering Construction" under TEQIP-II at Civil Engineering Department, National Institute of Technology Raipur on 19.11.2015.

#### Books and Book Chapter

- 1. Book: Sandeep K Chouksey and G L Siviakumar Babu, (2016), Analytical Models For Stress-Strain Response of Fiber Reinforced Soil (FRS) and Municipal Solid Waste (MSW). Lambert Academic Publishing, Koln, Germany. ISBN-10 3330005467
- 2. Book Chapter: Application of Geomatics in Civil Engineering "Evaluation of CORDEX Multi-RCM for Indian Subcontinent Using NASA's RCMES" Springer July 2019. ISSN NO. 978-981-13-7067-0

#### Refereed Journal Publications

- 1. Sagar D. Turkane and Sandeep K. Chouksey (2022) "Optimization of Fly Ash Geopolymer Dosage for California Bearing Ratio using Response Surface Method" Journal of Building Pathology and Rehabilitation, 7, 61 (2022), Springer (Scopus) <a href="https://doi.org/10.1007/s41024-022-00198-7">https://doi.org/10.1007/s41024-022-00198-7</a>
- 2. Sagar D. Turkane and Sandeep K. Chouksey (2022) "Design of Low Volume Road Pavement of Stabilized Low Plastic Soil Using Fly Ash Geopolymer", Materials today: Proceedings, Elsevier, (Scopus) https://doi.org/10.1016/j.matpr.2022.04.167
- 3. Sagar D. Turkane and Sandeep K. Chouksey (2022) "Design of flexible pavement thickness using stabilized high plastic soil by means of fly ash-based geopolymer" International Journal of Pavement Engineering, Taylor & Francis Group. (Scopus, SCIE) https://doi.org/10.1080/10298436.2022.2044035
- 4. Sagar D. Turkane and Sandeep K. Chouksey (2022) "Partial Replacement of Conventional Material with Stabilized Soil in Flexible Pavement Design" International Journal of Engineering, Transactions B: Applications 35(5):908-916 (IJE). (Scopus, ESCI) <a href="https://doi.org/10.5829/ije.2022.35.05b.07">https://doi.org/10.5829/ije.2022.35.05b.07</a>
- 5. Sagar D. Turkane and Sandeep K. Chouksey (2022) "Application of response surface method for optimization of stabilizer dosages in soil stabilization" Innovative Infrastructure Solutions. 7, 106 (2022), Springer. (Scopus, ESCI) https://doi.org/10.1007/s41062-021-00704-9
- 6. Sagar D. Turkane and Sandeep K. Chouksey (2021) "Partial Replacement of Moorum with Fly Ash in Embankment". In: Pathak K.K., Bandara J.M.S.J., Agrawal R. (eds) Recent Trends in Civil Engineering. Lecture Notes in Civil Engineering, vol 77. Springer, Singapore. (Scopus) <a href="https://doi.org/10.1007/978-981-15-5195-6\_30">https://doi.org/10.1007/978-981-15-5195-6\_30</a>
- 7. Rajak. T. K., Yadu. L., and Sandeep K Chouksey (2020). Effect of fly ash on geotechnical properties and stability of coal mine overburden dump: an overview. SN Applied Sciences 2 (5), 1-9 (ESCI AND SCOPUS)
- 8. Bajaj. P., Yadu. L and Sandeep K Chouksey (2019) "BEHAVIOR OF VERTICAL AND BATTER PILES UNDER LATERAL, UPLIFT AND COMBINED LOADS IN NON-COHESIVE SOIl". Innovative Infrastructure Solutions. (Accepted) In print. Issn NO. 2364-4176.
- 9. Rajak. T. K., Yadu. L., and Sandeep K Chouksey (2019) "Strength Characteristics and Stability Analysis of GGBS Stabilized Fly Ash-Overburden Dump". International Journal of Mining, Reclamation and Environment. (Accepted) In print. ISSN NO. 1748-0930
- 10. Rajak. T. K., Yadu. L., and Sandeep K Chouksey (2019) "Strength Characteristic and Stabilaty Analysis of Ground Granulated Blast Furnace Slag (GGBFS)" Stabilized Coal

- Mine Overburden-Pond Ash Mix. Geotechnical and Geological Engineering. (Accepted) In print. ISSN: 0960-3182
- 11. Bajaj. P., Yadu. L and Sandeep K Chouksey (2018) "STUDY ON VERTICAL AND BATTER PILES SUBJECTED TO LATERAL LOADS IN DIFFERENT NON-COHESIVE SUB-SOIL CONDITIONS". International Journal of Geotechnical Engineering. (Accepted) In print. ISSN NO. 2092-9196.
- 12. Rajak. T. K., Yadu. L., Sandeep K Chouksey and Pankaj Dewangan (2018) "Stability Analysis of Mine Overburden Dump Stabilized with Fly Ash". International Journal of Geotechnical Engineering. (Accepted) In print. ISSN NO. 2092-9196.
- 13. Rahul Sharma and Sandeep K Chouksey (2019) Enhancing the Acceptance of Roof Top Rain Water Harvesting by Increasing the Usability of Collected Water and Cost Optimization. *International Journal of Research and Analytical Reviews. Volume 6, Issue* 2. ISSN 2349-5138.
- 14. Sandeep K Chouksey and Abhishek Fale (2017) RELIABILITY ANALYSIS OF COUNTERFORT RETAINING WALL International Journal of Civil Engineering and Technology (IJCIET) Volume 8, Issue 7, July 2017, pp. 1058–1073, Article ID: IJCIET\_08\_07\_113
- Sandeep K Chouksey and G. L. Sivakumar Babu (2013). "Constitutive Model for Strength Characteristics of Municipal Solid Waste." Int. J. Geomech., 10.1061/(ASCE)GM.1943-5622.0000351, 04014040-1 04014040-14. (I.F 2.32) ISSN 1532-3641 Vol. 15, Issue 2 (April 2015)
- 16. GL Sivakumar Babu, Sandeep K Chouksey, and Krishna Reddy (2013). Approach for the use of MSW settlement predictions in the assessment of landfill capacity based on reliability analysis. Waste Management Journal, Elsevier publications Waste Management 33 (2013) 2029–2034. (I.F 4.72) ISSN: 0956-053X
- 17. GL Sivakumar Babu and Sandeep K. Chouksey (2012). Analytical model for stress-strain response of plastic waste mixed soil. *Journal of Hazardous, Toxic, and Radioactive Waste Management ASCE*. 16(3), 219–228. (*I.F 0.74*) ISSN(print): 2153-5493
- 18. GL Sivakumar Babu and Sandeep K. Chouksey (2011). Stress-strain response of plastic waste mixed soil. Journal of Waste Management. Volume 31, Issue 3 March 2011, Page 481-488. (*I.F 4.72*) ISSN: 0956-053X
- 19. GL Sivakumar Babu, Krishina Reddy and Sandeep K. Chouksey (2011). Parametric study of MSW landfill settlement model. *Waste Management Journal, Elsevier publications, 31 (2011) 1222–1231.. Top 20 Articles, in the Domain of Article 21354775, Since its Publication. (I.F 4.72) ISSN: 0956-053X.*
- 20. G L Sivakumar Babu, Krishna Reddy, Sandeep K Chouksey and Hanumanth Kulkarni (2010). Prediction of Long-term Municipal Solid Waste Landfill Settlement Using Constitutive Model, *Practice Periodical of Hazardous, Toxic, and Radioactive Waste Management, ASCE vol.14*(2),139-150.. (I.F 0.74) ISSN 1090-025X

- 21. GL Sivakumar Babu, Krishina Reddy, Sandeep K Chouksey (2010). Constitutive model for municipal solid waste incorporating mechanical creep and biodegradation-induced compression. Waste Management Journal, Elsevier publications 30 (1), 11 to 22. (I.F 4.72) ISSN: 0956-053X.
- 22. GL Sivakumar Babu and Sandeep K. Chouksey (2010). Model for analysis of fiber-reinforced clayey soil. Geomechanics and Geoengineering: *An International Journal. Vol. 5, No. 4, December 2010, 277–285. (I.F 0.87)* ISSN 1748-6025 print=ISSN 1748-6033 online (*Top ten downloaded papers in 2011*).

#### Refereed International Conference Publications

- Sagar D. Turkane and Sandeep K. Chouksey (2021) "Design of Low Volume Road Pavement of Stabilized Low Plastic Soil Using Fly Ash Geopolymer" International Conference on Advances in Construction Materials and Structures (ICCMS 2021), held at St. Thomas Institute for Science & Technology, Thiruvananthapuram, Kerala, India, 15<sup>th</sup> to 17<sup>th</sup> December, 2021.
- 2. Sagar D. Turkane and Sandeep K. Chouksey (2021) "Optimization of Stabilizer Dosages for Soil Stabilization Using Response Surface Method" International Conference (ONLINE) On Civil Engineering Trends and Challenges for Sustainability (CTCS 2021), held at N.M.A.M. Institute of Technology, Nitte, Karnataka, India, 19<sup>th</sup> & 20<sup>th</sup> November, 2021.
- 3. Sinha, S., and Chouksey, S. K. (2021). A Study Of Greywater Reuse System For An Urban Household. HYDRO 2020- International Conference On Hydraulics, Water Resources, and Coastal Engineering, NIT Rourkela on 26-28 March, 2021.
- 4. D .Debnath and Chouksey, S. K. (2020). Improvement of geotechnical properties of soft soil using copper slag based geopolymer
- 5. Sagar D. Turkane and Sandeep K. Chouksey (2019) "Partial replacement of moorum with fly ash in earth embankment" in International Conference on Recent Trends and Innovations in Civil Engineering (ICRTICE-2019) held at Medi-Caps University, Indore, 26<sup>th</sup> to 28<sup>th</sup> Sept. 2019.
- 6. Sandeep K Chouksey (2019). Strength Behavior of Plastic Waste Mixed Soil. International Conference "Techno-A-Tech 2018 with the theme "Engineering, Science and Technology: Ideas, Innovations and Initiatives, 26-27 October, 2018 at Bilaspur.
- 7. Sandeep K. Chouksey (2019). Effective Stress Analysis of Municipal Solid Waste in Undrained Loading. FACE 2019 (30th-31st August 2019), Mahindra École Centrale.
- 8. Sandeep K. Chouksey (2019). STRESS-STRAIN BEHAVIOR OF MUNICIPAL SOLID WASTE USING CONSTITUTIVE MODELING APPROACH. Middle East's GeoEMAST, sustainable Civil Infrastructures. Egypt.

- 9. Sandeep K. Chouksey (2019). Geotechnical Properties of Municipal Solid Waste for Bangalore City. Second ASCE India Conference on "Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies" (CRSIDE2020), March 2-4, 2020
- Sandeep K. Chouksey (2019). Shear Strength Behavior of Municipal Solid Waste for Bangalore City. 9th International Conference on Sustainable Waste Management towards Circular Economy, November 27 - 30, 2019; Kalinga Institute of Industrial Technology (KIIT) (DU), Bhubaneswar, Odisha, India; 9<sup>th</sup> IconSWM-CE 2019
- 11. Anita chaturvedi and Sandeep K. Chouksey (2019). Analyzing the water distribution network for Vaishali Nagar in Bhilai city using EPANET software. Second ASCE India Conference on "Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies" (CRSIDE2020), March 2-4, 2020
- 12. Sandeep K. Chouksey (2019). STRESS STRAIN RESPONSE OF MUNICIPAL SOLID WASTE IN UNDRAINED LOADING. INTERNATIONAL CONFERENCE ON RECENT TRENDS AND INNOVATIONS IN CIVIL ENGINEERING, Indore, September 26 28, 2019 Septembe
- 13. Sandeep K. Chouksey (2019). SETTLEMENT BEHAVIOR OF MUNICIPAL SOLID WASTE USING CONSTITUTIVE MODELING APPROACH. INTERNATIONAL CONFERENCE ON RECENT TRENDS AND INNOVATIONS IN CIVIL ENGINEERING Indore, September 26 28, 2019 September 26 28, September
- 14. Sagar D. Turkane and Sandeep K. Chouksey (2018). Influence of Size of circular footing on Ultimate Bearing Capacity of Soil by Response surface method. International Conference on Advances in Science and Technology (*ICAST*) *Jaipur*
- 15. Saket Dubey and Sandeep K. Chouksey (2018). Evaluation of CORDEX Multi-RCM for Indian subcontinent using NASA's RCMES. An International cofeerence "Geomatics in Civil Engineering", *Indian Institute of Technology Roorkee*, India 5-8<sup>th</sup> April 2018.
- 16. Saket Dubey, Digeshwar Prasad sahu and Sandeep K. Chouksey (2018)Rainfall-Runoff Modelling Of Kharun River Basin using SCS-Curve Number Method. WRCS 2018 International Symposium on Water Resources Challenges and Sustainability, *IIT Indore* 10<sup>th</sup> March 2018
- 17. Suraj K Byas and Sandeep K. Chouksey (2018) Reliability analysis of 2D truss by FORM. International Conference on Advances in Science and Technology ( *ICAST*) *Jaipur.2018*
- 18. Suraj K Byas and Sandeep K. Chouksey (2018). Reliability analysis of 2D truss by Monte Carlo simulation. *International Conference on Advances in Science and Technology (ICAST) Jaipur*.
- 19. Sandeep K. Chouksey (2017). Strength and Deformation behavior of Municipal Solid. 6iYGEC, Seoul, South Korea 16-17<sup>th</sup> September 2017.

- 20. Sandeep K. Chouksey and GL Sivakumar Babu (2013). Stress strain response of Municipal Solid Waste in drained condition using Constitutive Modeling Approach. 18TH ISSMGE INTERNATIONAL CONFERENCE ON SOIL MECHANICS AND GEOTECHNICAL ENGINEERING. Paris Sep. 2013
- 21. Sandeep K. Chouksey and GL Sivakumar Babu (2012). Analysis of Municipal Solid Waste using Constitutive Modeling Approach. FOURTH INTERNATIONAL SYMPOSIUM ON ENERGY FROM BIOMASS AND WASTE San Servolo, Venice (Italy) 12-15 November 2012.
- 22. Sandeep K. Chouksey, Lakshmikanthan P and GL Sivakumar Babu (2012). Study of Engineering Properties of Municipal Solid Waste. 3rd International Conference on Solid waste Management (IconSWM2012) at Mysore, India during July 30 Aug 01, 2012.
- 23. Ronak J Dand, Abhinay Kumar, G.L. Sivakumar Babu and Sandeep K. Chouksey. (2012). Effects of temperature and lift thickness on MSW landfill settlement. International Congress on Computation Mechanics and Simulation (ICCMS), IIT Hyderabad, 10-12 December.
- 24. Sandeep K. Chouksey, GL Sivakumar Babu and Krishina Reddy (2012). Settlement Analysis of MSW Based on Constitutive Modeling Approach. GEO-CONGRESS 2012, Oakland, Ca March 25 29.
- 25. Sandeep K. Chouksey and GL Sivakumar Babu (2012). Reliability Analysis of Municipal Solid Waste. International Symposium on Engineering under Uncertainty: Safety Assessment and Management (ISEUSAM) Kolkatta January 4 to 6 2012.
- 26. Sandeep K. Chouksey and GL Sivakumar Babu (2011) Model for analysis of fiber reinforced clayey soil. 14th Asian Regional Conference on Soil Mechanics (ARC-2011) & Geotechnical Engineering, Hong Kong,.
- 27. Sandeep K. Chouksey and GL Sivakumar Babu. (2011). Effective stress analysis of municipal solid waste using constitutive model. 13<sup>th</sup> IACMAG, Australia, Melbourne Conference, May 2011.
- 28. Sandeep K. Chouksey and GL Sivakumar Babu. (2011). Comparative study of fiber reinforced soil. 13th IACMAG, Australia, Melbourne Conference, May 2011.
- 29. GL Sivakumar Babu and Sandeep K. Chouksey (2011). Analytical model for stress-strain response of plastic waste mixed soil. In Geo-Frontiers ASCE, 13-16 March 2011, Dallas, Texas USA, pp 1091-1100.
- 30. GL Sivakumar Babu, Krishina Reddy and Sandeep K. Chouksey. (2010). Constitutive model for MSW considering creep and biodegradation effects. 6ICEG International Conference at New Delhi, November 2010, 451-456.
- 31. GL Sivakumar Babu and Sandeep K. Chouksey (2010). "Stress-strain and compressibility behavior of plastic waste mixed soil.". Conference on Infrastructure, Sustainable Transportation and Urban Planning (CISTUP@CiSTUP 2011), Oct 18-20, IISc Bangalore.

32. GL Sivakumar Babu, Preeti Kashyap and Sandeep K. Chouksey (2009). Studies on Coir geotextiles as drainage medium in soft ground improvement. 2nd International Conference on Geosynthetics Middle East Dubai, United Arab Emirates 10 / 11 November 2009.

#### Referred National Conference Publications

- 1. Subham Agrawal and Sandeep Kumar Chouksey (2019). A Review on Environmental Flow Estimation: Methods and Methodologies. BITCON 2019, Bhilai Institute of Technology, Durg Chhattisgarh.
- 2. Rahul Sharma and Sandeep Kumar Chouksey (2019). ENHANCING THE ACCEPTANCE OF ROOF TOP RAIN WATER HARVESTING BY INCREASING THE USABILITY OF COLLECTED WATER AND COST OPTIMIZATION. BITCON 2019, Bhilai Institute of Technology, Durg Chhattisgarh.
- 3. Sandeep K Chouksey and Abhishek Fale (2017). Reliability Analysis of Counterfort Retaining Wall using Response Surface Method. Indian Geotechnical Conference, GEONEST, Geotechnics for Natural and Engineered Sustainable Technology, IIT Guwahati.
- 4. Sandeep K Chouksey and Abhishek Fale (2017). Factor of Safety and Reliability of Counterfort Retaining Wall. Indian Geotechnical Conference, GEONEST, Geotechnics for Natural and Engineered Sustainable Technology, IIT Guwahati.
- 5. Abhishek Fale and Sandeep K Chouksey (2017). "Reliability Analysis of Retaining Wall". <sup>3rd</sup> International conference on Sustainable Energy & Buil Environment, 1<sup>6th</sup> 1<sup>7th</sup> March 2017. ISBN. 978-81-923320-5-5.
- 6. Pankaj Bajaj, Laxmikant Yadu and Sandeep K Chouksey (2017). Experimental Study of Vertical and Batter Pile groups under Lateral Loads in sand. Geotechnics for Natural and Engineered Sustainable Technology, IIT Guwahati.
- 7. Tarun K Rajak, Laxmikant Yadu and Sandeep K Chouksey (2017). Strength Characteristics of Fly Ash Stabilized Soil Embankment and Stability Analysis Using Numerical Modelling. Geotechnics for Natural and Engineered Sustainable Technology, IIT Guwahati.
- 8. Rajak. T.K., Yadu. L., and Chouksey. S.K. (2017) "Stability analysis of soil slope stabilized with fly ash and lime" International Conference on Advances in Concrete, Structural & Geotechnical Engineering (ACSGE, 2018), BITS Pilani, India
- 9. K.Geetha Manjari, G. Anoosha, Pawan Kumar, Sandeep K. Chouksey & G.L.Sivakumar Babu (2011). Compressibility behavior of plastic waste mixed sand. Indian Geotechnical Conference, Kochin 15-17, Dec 2011.
- 10. GL Sivakumar Babu, Sandeep K. Chouksey and (2010). Strength and compressibility response of plastic waste mixed soil. Indian Geotechnical Conference (2010, Dec 16-18).

11. Sandeep K. Chouksey and GL Sivakumar Babu. (2009). Time effects on clay using proposed model. Indian Geotechnical Conference. Guntur, Vol.1, 3-6.

#### Paper under Review

- 1. Sandeep Kumar Chouksey and GL Sivakumar Babu. (2017). Prediction of Stress-Strain Response of MSW using Constitutive Modeling Approach in Undrained Condition. International Journal of Geomechanics (*ASCE*).
- 2. Sandeep Kumar Chouksey (2017). Strength and Stiffness Ratio of Municipal Solid Using Response Surface Method. International Journal of Geomechanics (*ASCE*).
- 3. Sandeep Kumar Chouksey (2017). Effective Stress Analysis of Municipal Solid Waste Based on Constitutive Modeling Approach. International Journal of Geomechanics (ASCE).
- 4. Sandeep Kumar Chouksey (2017). Statistical Review of Shear Strength Parameters of Municipal Solid Waste. International Journal of Geomechanics (*ASCE*).
- 5. Sandeep Kumar Chouksey (2017) and Sagar (2018). Compaction Characteristics of Soil Blended with Fly Ash. International Journal of Geomechanics (*ASCE*).

### Google Scholar Cited by

	All
Citations	637
h-index	11
i10-index	11

#### Reviewer of Journals

- 1. Journal of Hazardous, Toxic, and Radioactive Waste (ASCE).
- 2. International Journal of Integrated Waste Management, Science and Technology.
- 3. International Journal of Geosynthetics and Ground Engineering.
- 4. Geomechanics and Engineering, An International Journal.
- 5. Indian Geotechnical Journal (IGJ).
- 6. Canadian Geotechnical Journal

### Outreach Activity:

1. Expert lecture on "Overview of Geotechnical Engineering Aspects of Highways and Bridge" & Geo-synthetics in Highway Engineering. RCTRC Sector 24, Jhanh, Atal Nagar (C.G) on 01.06.2019.

Short Term Training Programs/Workshops Organized:

1. One week TEQIP-III sponsored STTP on "Big Data Analytics and related Technologies" during 8th to 12th January, 2018.

# Students

# PhD Students

S.No	Name of students	Title of	Supervisor	Joint	Year and
		Thesis		Supervisor	status
1.	Tarun Rajak	A parametric study of slope angle, dumping sequence and fly ash content on stability of fly ash mixed mine overburden dump	Dr. L K Yadu	Dr. S. K. Chouksey	Completed 2020
2.	Pankaj Bajaj	Study on Vertical	Dr. L K Yadu	Dr. S. K.	Completed
		Piles, Batter	Y adu	Chouksey	2020
		Piles, Batter Pile and Pile			
		Groups			
		subjected to Lateral,			
		Uplift and Combined			
		Loading in			
		Non-			
		Cohesive			
		Soil			
3.	Sagar Turkane Patil	Probabilistic	Dr. S. K.	NIL	Completed
J.	Sagar Turkane Latir		Chouksey	NIL	2023
		mining	Choursey		2023
		overburden			

		waste			
4.	Debabrata Debnath	Fly ash as an	Dr. S. K.	NIL	(Joined in
		alternative	Chouksey		Aug 18) In
		material for			Progress
		various			
		application			
5	Rakesh Pydi	Stabilization	Dr. L K	Dr. S. K.	(Joined in
		with	Yadu	Chouksey	Feb 2021)
		Biopolymer			In
					Progress
6	CH. Hari Prasad	Municipal	Dr. S. K.	NIL	(Joined in
		Solid Waste	Chouksey		July 2022)
		Management			In
		in Raipur			Progress
		City			

# M.Tech Students

S.N	Name of students	Specializati	Title	Year and status
О		on		
1.	Abhishek Fale	Structural	Reliability Analysis of	Completed in 2017
		Engg.	Counterfort Retaining Wall	
2.	Saket Dubey	WRD & IE	A Study on Impact of climate	Completed in 2018
			Change on Surface Runoff	
			Using SWAT Model for	
			Kharun River Sub-Basin of	
			Chhattisgarh State	
3.	Neelima Gupta	WRD & IE	Optimization of Multipurpose	Completed in 2018
			Reservoir of Minimata	
			Hasdeo Bango Dam	
4.	Suraj Byas	Structural	Reliability Analysis of 2D	Completed in 2018
		Engg.	Truss	
5.	Rahul Sharama	WRD & IE	Enhancing the Acceptance of	Completed in 2019
			Roof Top Rain Water	
			Harvesting by Increasing its	
			Usability Using Advanced	
			Techniques	
6.	Shubham	WRD & IE	Use of Hydrological Indices	Completed in 2019
	Agrawal		for Assessment of	
			Environmental Flow of Rivers	
			of Mahanadi Basin	

7.	Anita Chaturvedi	WRD & IE	A layout of Water	Completed in 2019
			Distribution System for	
			Vaishali Nagar in Bhilai City	
8.	Susen Sinha	WRD & IE	A study of greywater reuse	Completed in 2020
			system for an	
			Urban household	
8.	Ganji Sreeelekha	WRD & IE	Reliability of rainwater	Completed in 2021
			harvesting system for	
			Various economy sections	
9.	Chinta	WRD & IE	IOT based smart irrigation	Completed in 2021
	Amareshwar		System	

# B.Tech Students (Minor Project)

S.No	Name of	Title	Year and status
	students		
1.	Manas	Settlement Analysis of Landfill using Existing	Completed in
	Tripathi and	Models	December 2015
	Avinash Sahu		
2.	Abhishek and	App development for Solid Waste Management	Completed in
	Ashish		December 2015
	Bhagat		
3.	Abhishek,	"Real Time Water Monitoring System".	Completed in
	Rahul, Sujata,		December 2016
	Rajeshwari		
	and Ashok		
4.	SukrityRanjan	Stability of Pavement using Geogrid	Completed in
	Samanta		December 2016
5.	Vivek and	Geotechnical Engineering Laboratory Experiments.	Completed in
	Raishab	An App Development	December 2017
6.	Mahesh, Ravi	Reliability Analysis of Shallow Foundation	Completed in
	and Surrender		December 2017
7.	ABHAY		Completed in
	AGRAWAL,		December 2018
	ANKUR		
	KUMAR and		
	AKSHAJ	Design of municipal solid waste sanitary landfill for	
	SHUKLA	raipur city	
8.	NIRBHAY	Fly ash and sand as filter material	Completed in
	SHADANI		December 2018
9.	ANKIT	Application of fly ash as a liner	Completed in
	PANWAR		December 2018
	and		
	ABHISHEK		
	SINGH		

S.No	Name of students	Title	Year and statu	IS
1.	Manas Tripathi and Avinash Sahu	Real Time Settlement Analysis of a Sample Landfill Using Wireless Sensor Network	Completed May 2016	in
2.	Abhishek, Ashish,Abbu Manikanta and Shashikanth	Design and Development of Rapid Composting Machine using Embedded System Technology".	Completed May 2016	in
3.	Abhishek, Rahul, Sujata, Rajeshwari and Ashok	Reliability Analysis of Slope Stability.	Completed May 2017	in
4.	Sukrity Ranjan Samanta	Reliability Analysis of Dumped Solid Waste.	Completed May 2017	in
5.	Mahesh Choudary	Material Recovery Facility (MRF)	Completed May 2018	in
6.	Vivek and Rashaib	Development of An App For Geotechnical Engineering laboratory	Completed in May 2018	
7.	Ravi	Numerical Analysis of Slope stability using Flac 3D	Completed in May 2018	
8.	Surrendera Meena	Numerical Analysis of Square and Circular Footing using Flac 3D	Completed May 2018	in
9.	ANKIT PANWAR ABHINESH PRAKSH SINGH	Application of machine learning in geotechnical problems	Completed May 2019	in
10	Abhay Agrawal Ankur Kumar Akshaj Shukla	Reliability analysis of shallow foundation	Completed May 2019	in
11.	Nirbhay Shadani	Study of shear strength parameter of sand mixed with pond ash and lime	Completed May 2019	in
12	Ritesh Diwakar, Rishabh jain,	Fixing efficient location of window trough programming	Completed May 2019	in
13	Chandra Yadav, Raunaq Purohit, Kishan Keshri	Study of formwork and advance Technology in formwork	Completed May 2020	in

14	ANKIT	Study on Prospects Of adopting Modern	Completed	in
	VERMA	Technologies in mass Housing	May 2020	
15	PRAKHAR	"Innovative design of window"	Completed	in
	SAHU	-	May 2020	
16	Harsh Kumar	AQI, Air quality modelling using Aernet and	Completed	in
	Sahu,	Aermod and preventive measures for air pollution	May 2021	
	Yashaswi	problems in Raipur city	-	
	Shankar,			
	Tejendra			
	Kumar Sinha,			
	Nagesh			
	Wankhede,			
	Muskan			
	Gautam			
	Abhishek	Manufacturing of high strength, economical and eco-	Completed	in
	Kasare	friendly Fly ash brick and comparison among	Dec 2022	
		Different types of bricks		
	G. Maneesh	Home Composting Kitchen Waste	Completed	in
	K. Jitendra		Dec 2022	
	Akash Kumar	Deign of low cost water filter	Completed	in
	Gupta,		Dec 2022	
	Deepak			
	Kumar			

# Course Taught

# Undergraduate Program (B.Tech.)

S.No.	Theory Subject	Laboratory
1.	Geotechnical Engineering I 2016 and 2017/5 <sup>th</sup> sem.	Geotechnical Engineering I (2015,2016, 2017) 5 <sup>th</sup> Sem.
2.	Geotechnical Engineering II 2016 and 2017 / 6 <sup>th</sup> sem.	Geotechnical Engineering II (2015,2016, 2017) 6 <sup>th</sup> Sem.
3.	Structural Analysis I 2015 / 4 <sup>th</sup> sem.	Matlab Application in Civil Engineering; (2015)7 <sup>th</sup> Sem.
4.	Strength of Material 2015 / 3 <sup>rd</sup> sem. (Mining Engineering)	
5.	Basic Civil Engineering 2015/ 1 <sup>st</sup> sem.	Basic Civil Engineering (2015) 1 <sup>st</sup> year
6.	Advanced Soil Mechanics (Elective ) 2018/7 <sup>th</sup> Sem.	Matlab Application in Civil Engineering; (2018)7 <sup>th</sup> Sem.
7.	Geotechnical Engineering II 2019 / 6 <sup>th</sup> sem.	Geotechnical Engineering II (2019) 6 <sup>th</sup> Sem.

8.	Basic Civil Engineering	

### Master's Program (M.Tech.)

S.No.	Theory Subject	Year/Semester
1.	Numerical Methods	2016, 2017, 2018, 2019/ 1 <sup>th</sup> sem
2.	Reliability Engineering	2017 / 2 <sup>th</sup> sem
3.	Repair and Rehabilitation of Structures	2015 / 3 <sup>th</sup> sem.
4.	Ground Improvement Techniques	2018/2 <sup>nd</sup> Structure

# Departmental Activities identified by Head of the department

- 1. PhD coordinator since 15.02.2019 to till date.
- 2. PhD admission In charge 2018, 2019.
- 3. Prof. In-charge Geotechnical Engineering lab since 07.07.2016 to till date.
- 4. Prof. In-charge Innovation and Entrepreneurial Activities since 10.12.2018 to till date.
- 5. Member, NBA Accreditation Team (M.Tech. Structural Engineering Program) 18 02 2019 to till date.

### Membership in Professional Bodies

- 1. American Society of Civil Engineering (ASCE) Student Member I.D # 9129533
- 2. International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) Member I.D # IND12M-4369

### Computer Skills

Mathematical Software: MATLAB, Mathematica, Optimization toolbox, Statistical toolbox.

Commercial Packages: Familiar with PLAXIS, FDM, FLAC 3D (Fast Lagrangian Analysis of Continua 3D)