

Name: **Dr. RAKESH SIEMPU**

Designation: Assistant Professor

Department: Civil Engineering

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Experience (in years): 9 years Teaching: 4 years Research: 4 years Industry: 1 year

1. Educational / Technical qualifications:

S.No.	Level (UG / PG / Ph.D)	Year of passing	Specialization
1	Ph.D. (From NIT Warangal)	2018	Civil Engineering
2	M.Tech. (From NIT Warangal)	2012	Engineering Structures
3	B.Tech. (From JNTU Hyderabad)	2010	Civil Engineering

2. Teaching and Learning:

2.1. Teaching Interests:

- UG: Concrete Technology, Design of Reinforced Concrete Structures, Design of Steel Structures, Strength of Materials, Structural Analysis, Engineering Mechanics, Earth Quake Resistant Design of Buildings, Engineering Mechanics, Green Building Technology.
- PG: Advanced Concrete Technology, Prestressed Concrete, Repair and Rehabilitation of Structures.

2.2. Novel Teaching & Learning Techniques adopted:

- Chalk and Talk, PPT's, WIT & WIL.

2.3. Involvement in curriculum updating / Design:

- Designed syllabus for the subjects Repair, Rehabilitation & Retrofitting of Structures, and Design of High Rise Structures for M.Tech (Structural Engineering) – R18 curriculum, Designed syllabus for subject Concrete Technology and Concrete Laboratory for B.Tech (Civil engineering) – R18 curriculum.

3. Co-curricular and Extra-Curricular Activities

3.1. Interests and Hobbies:

- Journal reading and taking up new projects; Sports (Cricket) and Music Listening.

3.2. CCA/ECA Organized:

- Faculty Coordinator for a Webinar on “Careers in Civil Engineering” by Er. Girish S, Structural Design Engineer, LA. California, USA on 11th June 2020.
- Faculty Coordinator for a Webinar on “Next Generation Concrete” by Er. N Srinivasa Rao – Technical Head, UltraTech Telangana Region on 15th May 2020.
- Faculty Coordinator for a two day workshop on “Structural Design”, organized during 6-7 February 2020 by Department of Civil Engineering, VNRVJIET, Hyderabad.
- Faculty Coordinator for a two day workshop on “IoT in Civil Engineering” conducted as part of CONVERGENCE – 2019 organized during 6-7 February 2020 by VNRVJIET, Hyderabad.
- Faculty Coordinator for one day technical symposium “HORIZON – A Technical Civil Engineering Symposium” conducted by Department of Civil Engineering, VNRVJEIT on 23rd March 2019.

f) Faculty Coordinator for a two workshop on “Plumbing Design” conducted as part of CONVERGENCE – 2018 by VNRVJIET, Hyderabad.

3.3. CCA/ECA participated:

- a) Elected Unanimously as Vice-President of the Students’ Council of National Institute of Technology, Warangal, India for the academic year 2011-12.
- b) Worked as Executive Member of the Civil Engineering Association of VNR Vignana Jyothi Institute of Engineering & Technology, Hyderabad, Telangana, India during the academic year 2009-10.
- c) Worked as Joint Secretary for Civil Engineering Association of VNR Vignana Jyothi Institute of Engineering & Technology, Hyderabad, Telangana, India during the academic year 2008-09 and actively organised STHAPANA 2K9.

3.4. Counseling and Mentoring Activity:

- a) Currently mentoring 10 students of III B.Tech and 12 students of IV B.Tech.

3.5. Committees involved in:

Department level:

- a) Faculty Coordinator – Civil Engineering Association, ICI and IGBC Student Chapters
- b) Open House
- c) NBA

Institute Level:

- a) Nil

4. Conference / Workshop / Seminar / Guest Lectures

4.1 Conducted:

- 1) **Conference Coordinator** for Three Day “International Conference on Construction Materials and Smart Structures for Sustainable Development (ICCMSSSD) – 2020” during 29-31 January 2020, Organized by the Department of Civil Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, India.
- 2) **Coordinator** for One Week Online Faculty Development Program on “Advances in Concrete Science and Technology for Sustainability (ACSTS)” during 13-18 July 2020, Organized by the Department of Civil Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, India.

4.2 Attended:

S.No.	Workshop/Conference	Organized by	Duration & Year
1.	AICTE Sponsored One Week Online Short Term Training Programme (STTP) on “Emerging Tools for Design and Analysis of Sustainable Roads (ETDASR-2020)” ‘Series-2: Computational Tools used in the Development of Sustainable Road Materials and Traffic Systems’	Department of Civil Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, India.	One Week; 24 – 29 August, 2020
2.	AICTE Sponsored One Week Online Short Term Training Programme (STTP) on “Emerging Tools for Design and Analysis of Sustainable Roads (ETDASR-2020)” ‘Series-1: Insights into Development of	Department of Civil Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, India.	One Week; Jul’27 – Aug’01, 2020

	Sustainable Road Materials and Traffic Systems'		
3.	Online Faculty Development Program on "Advances in Concrete Science and Technology for Sustainability (ACSTS)"	Department of Civil Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, India.	One Week; 13-18 July, 2020
4.	Online Faculty Development Program on "Recent Trends and Research Scope in Civil Engineering (RTRSCE)"	Department of Civil Engineering, Chaitanya Bharathi Institute of Technology (A), Hyderabad, Telangana, India	Five Days; 6-10 July, 2020
5.	Online Faculty Development Programme on "Innovative Teaching Methods on Recent Advances in Concrete and Sustainable Technologies (ReCAST)"	Department of Civil Engineering, National Institute of Technology, Warangal, Telangana, India	Five Days; 1-5 July, 2020
6.	AICTE Sponsored One Week Online Short Term Training Programme (STTP) on "Recent Advances in Forensic Analysis of Sub and Super Structures (RAFASSS)"	Department of Civil Engineering, Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada, Andhra Pradesh, India	One Week; Jun '29 – Jul '4, 2020
7.	Online Faculty Development Program on "Smart Materials in Construction"	Department of Civil Engineering, Vardhaman College of Engineering, Hyderabad, Telangana, India	One Week; Jun '25 – Jul '01, 2020
8.	Webinar Short Course on "Concrete Technology – Past, Present & Future"	Department of Civil Engineering, National Institute of Technology, Tiruchirappalli, Tamilnadu, India	Two Weeks; 15-26 June, 2020
9.	Online Faculty Development Program on "Advances in Building Designs: Pre Engineered Design Methodology and Limit State Design Applications"	Department of Civil Engineering, Velagapudi Ramakrishna Siddhartha Engineering College under AICTE-MARGDARSHAN Scheme, Vijayawada, Andhra Pradesh, India	One Week; 17-21 June, 2020
10.	Online Workshop on "Research Writing and Legal Aspects of Academic Research"	Faculty Development Centre, Savitribai Phule Pune University, Pune, Maharashtra, India	Two Days; 12-13 June, 2020
11.	International Conference on Construction Materials and Smart Structures for Sustainable Development (ICCMSSSD) – 2020	Department of Civil Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, India.	Three Days; 29-31 January, 2020
12.	Faculty Training Program on "Learning by Doing Python"	Competency Development Centre, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, India.	One Week; 18-23 December, 2019
13.	Workshop on "Business Opportunities in Waste Management (BOWM-2019)"	Department of Civil Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, India.	Two Days; 3-4 October, 2019

14.	Telangana State Science Congress (TSSC-2018)	Telangana Academy of Sciences and National Institute of Technology, Warangal, Telangana, India.	Three Days; 22-24 December, 2018
15.	Faculty Induction Training Program sponsored by PMMMNMTT, MHRD, Govt. of India	Teaching Learning Centre IIT Hyderabad, Hyderabad, India.	Three Weeks; Nov'12 – Dec'06, 2018
16.	National Conference on “Transportation Research Efforts for Ecological Sustainability (TREES-2018)”	Department of Civil Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, India.	Two Days; 28-29 September, 2018
17.	Workshop “To Train the Trainers for Implementation of Induction Program”	TEQIP-III, Jawaharlal Nehru Technological University, Hyderabad, Telangana, India.	Three Days; 17-19 May, 2018
18.	GIAN Course on “FRP Technology for Strengthening and Rehabilitation of Structures”	Department of Civil Engineering, National Institute of Technology, Warangal, Telangana, India.	One Week; 21-25 August, 2017
19.	Faculty Development Program on “Recent Advances in Concrete Technology (ReACT)”	Structures Division, Department of Civil Engineering, National Institute of Technology, Warangal, Telangana, India.	Three Days; 20-22 March, 2017
20.	Workshop on “Condition Assessment and Rehabilitation of Structures (CARS)”	Structures Division, Department of Civil Engineering, National Institute of Technology, Warangal, Telangana, India.	Three Days; 17-19 March, 2017
21.	GIAN Course on “Dynamic Material Failure”	Department of Civil Engineering, National Institute of Technology, Warangal, Telangana, India.	Two Weeks; 13-23 June, 2016
22.	Workshop on “Open Source Software for Civil Engineering Applications (OSSCEA)”	Department of Civil Engineering, National Institute of Technology, Warangal, Telangana, India.	Three Days; 17-19 October, 2014
23.	Workshop on “Geo-Risks and Remedies (GRR-2014)”	Department of Civil Engineering, National Institute of Technology, Warangal, Telangana, India.	One Day; 31 January, 2014
24.	Workshop on “Research Methodology and Scholarly Writing Skills”	SC/ST Cell, National Institute of Technology, Warangal, Telangana, India.	Two Days; 25-26 January, 2014
25.	National Conference “Modern Concretes – Driving Profit and Sustainability (MCDPAS-2016)”	Department of Civil Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, Telangana, India.	Two Days; 26-27 August, 2016
26.	International Conference “UKIERI Concrete Congress – Concrete Research Driving Profit and Sustainability”	Department of Civil Engineering, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab, India.	Four Days; 2-5 November, 2015

27.	National Meet “Research Conclave’17”	National Institute of Technology Warangal, Telangana, India.	Two Days; 17-18 March, 2017
28.	All India Seminar on “New Developments in Use of Alternate Materials for Concrete (AMCON-2015)”	Indian Concrete Institute, Nagpur Centre, Nagpur, Maharashtra, India.	Two Days; 13-14 March, 2015

5. Academic Contribution and Research & Consultancy

5.1. Invited Lectures:

- 1) **Resource Person** for Two Week AICTE sponsored Short Term Training Program (STTP) on “Design and Structural Evolution of Advanced Functional Materials Suitable for Engineering Applications” Organized by the Department of Electronics and Instrumentation Engineering and Centre for Nano Science and Technology, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad during Feb, 15–20 (spell-1) and March, 01-06 (spell-2), 2021 and delivered a lecture titled “Foam Concrete: A Potential Alternative Sustainable Building Material” on 5th March 2021.
- 2) **Resource Person** for One Week Online Faculty Development Program on “Advances in Concrete Science and Technology for Sustainability (ACSTS)” Organized by the Department of Civil Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad during 13-18, July 2020 and delivered a lecture titled “Understanding Chemistry of Cement and Supplementary Cementitious Materials from Sustainability Perspective and the Road Ahead” on 16th July 2020.
- 3) **Resource Person** for One Week Online Faculty Development Program on “Advances in Sustainable Construction Engineering (ASCE)” Organized by the Department of Civil Engineering, Kakatiya Institute of Technology and Science, Warangal during 13-18, July 2020 and delivered a lecture titled “Role of Cementitious Materials in Sustainable Construction” on 14th July 2020.
- 4) **Resource Person** for One Week Online Faculty Development Program on “Smart Materials in Construction” Organized by the Department of Civil Engineering, Vardhaman College of Engineering, Hyderabad during 25th June to 1st July 2020 and delivered a lecture titled “Lightweight Concrete” on 28th June 2020.

5.2. Articles / Chapters published in Books: Nil

5.3. Books published as single author or as editor: Nil

5.4. Projects Guided: Nil

- a) UG: 03 (Completed)
 - i. “Basalt Fibre Reinforced Self-Compacting Concrete” (April 2019)
 - ii. “Study on the Chloride-Ion Penetration of Vibrated and Geopolymer Concretes” (May 2020)
 - iii. “Studies on the Properties of Cellular Light Weight Concrete” (May 2020)
- b) PG: 05 (Completed) and 02 (On Going)
 - i. Study on the Properties of Foam Concrete Incorporated with Fly ash (Mar 2021)
 - ii. Study on the Effect of Basalt Fibres on the Properties of Foam Concrete (Mar 2021)
 - iii. “Effect of Basalt Fibers on the Properties of High Strength Self-Compacting Concrete” (March 2020)
 - iv. “Effect of Steel Fiber Type and Dosage on Strength and Pull-Out Behaviour of High Strength Self Compacting Concrete” (March 2020)

v. “Behaviour of Vibrated and Self-Compacting High Strength Concretes Subjected to Elevated Temperatures” (March 2020)

5.5. Research Interests:

- Self Compacting Concrete, Self Curing Concrete, Recycled Aggregate Concrete, Geopolymer Concrete, Lightweight Concrete, Foam Concrete, Structural behaviour of New Concretes, Durability of Special Concretes.

5.6. Ph.D. students: Nil

- Enrolled: Nil
- Submitted: Nil
- Awarded: Nil

5.7. Papers published in International / National journals:

S.No.	Title of the Paper	Journal Name Vol. No. pp.	ISBN/ISSN No.	Impact Factor/ Citation Index	National/ International
1.	Study on the Fresh and Hardened Properties of Foam Concrete Incorporating Fly Ash	Materials Today: Proceedings, Vol. (), pp., , 2021	2214-7853	Web of Science Indexed	International
2.	Experimental Investigation on Properties of Fiber Reinforced No Aggregate Concrete	Materials Today: Proceedings, Vol. 43(2), pp. 2432-2437, March, 2021	2214-7853	Web of Science Indexed	International
3.	Mechanical and Durability Properties of No Aggregate Concrete using Silica Fume	International Journal of Innovative Technology and Exploring Engineering (IJITEE), Vol. 9, No. 3, pp. 246-249, January, 2020	ISSN: 2278-3075	SCOPUS Indexed; H-index = 40	International
4.	Behaviour of High Strength Concrete Subjected to Elevated Temperature	International Journal of Innovative Technology and Exploring Engineering (IJITEE), Vol. 9, No. 2, pp. 2997-3000, December, 2019	ISSN: 2278-3075	SCOPUS Indexed; H-index = 40	International
5.	Effect of Steel Fiber Aspect Ratio on the Properties of High Strength Self Compacting Concrete	International Journal of Innovative Technology and Exploring Engineering (IJITEE), Vol. 9, No. 2, pp. 2938-2941, December, 2019	ISSN: 2278-3075	SCOPUS Indexed; H-index = 40	International
6.	Effect of Basalt fibers on the properties of high strength self-compacting concrete	International Journal of Innovative Technology and Exploring Engineering (IJITEE), Vol. 9, No. 1, pp. 3995-3998, November, 2019	ISSN: 2278-3075	SCOPUS Indexed; H-index = 40	International
7.	Improved Diabetes Prediction Model for	International Journal of Innovative Technology and	ISSN: 2278-3075	SCOPUS Indexed; H-	International

	Predicting Type-II Diabetes	Exploring Engineering (IJITEE), Vol. 8, No. 12, pp. 230-235, October, 2019		index = 40	
8.	Evaluation of Level Of Service at Signalized Intersections using Microscopic Simulation Technique	International Journal of Technical Innovation in Modern Engineering & Science (IJTIMES), Vol. 5, No. 9, pp. 42-53, September, 2019	ISSN: 2455-2585	-	International
9.	A Study on the Parameters Influencing Flexural Bond Stress in Reinforced Concrete	Structures; Vol. 16, pp. 198-207, September, 2018	ISSN: 2352-0124	Science Citation Index Expanded; Thomson Reuters IF = 1.839; SCOPUS Indexed; H-index = 17	International
10.	Pull-out Behaviour of Recycled Aggregate based Self Compacting Concrete	Computers & Concrete; Vol. 21, No. 3, March, 2018 .	ISSN: 1598-8198 (Print); E-ISSN: 1598-818X	Science Citation Index Expanded; Thomson Reuters IF = 1.507; SCOPUS Indexed; H-index = 24	International
11.	Bond characteristics of concrete made of recycled aggregates from building demolition waste	Magazine of concrete research; Vol. 69, No. 13, pp. 665-682, July, 2017 .	ISSN: 0024-9831; E-ISSN: 1751-763X	Science Citation Index Expanded; Thomson Reuters IF = 2.088; SCOPUS Indexed; H-index = 51	International
12.	Bond performance of ribbed steel reinforcing bars in vibrated and self-compacting concrete	Proceedings of the Institution of Civil Engineers – Structures and Buildings; Vol. 170, No. 6, pp. 419-436, June, 2017 .	ISSN: 0965-0911; E-ISSN: 1751-7702	Science Citation Index Expanded; Thomson Reuters IF = 0.965;	International

				SCOPUS Indexed; H-index = 36	
13.	Mix model for self-compacting concrete with recycled aggregate	Proceedings of the Institution of Civil Engineers – Structures and Buildings; Vol. 170, No. 2, pp. 131-142, February, 2017.	ISSN: 0965-0911; E-ISSN: 1751-7702	Science Citation Index Expanded; Thomson Reuters IF = 0.965; SCOPUS Indexed; H-index = 36	International
14.	Constitutive Behaviour of Bond in RC Structures based on Pull-out Strength	Cement Wapno Beton; Vol. 12, No. 6, pp. 341-358, Nov-Dec, 2015.	ISSN: 1425-8129	Science Citation Index Expanded; Thomson Reuters IF = 0.476; SCOPUS Indexed; H-index = 13	International

5.8. Papers presented at National / International Conferences:

S.No.	Title of the Paper	Names of the Conference/ Seminar	National/ International	Period
1.	Numerical Study on the Bond Behaviour of Plain and Ribbed bars in Self-Compacting Concrete	International Conference on Construction Materials and Smart Structures for Sustainable Development (ICCMSSSD) – 2020” Organized by the Department of Civil Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, Telangana, India.	International	29-31 January 2020
2.	A Study on the Influence of Grade of Concrete on the Pull out Behaviour of Self Compacting Concrete	UKIERI Concrete Congress – Concrete Research Driving Profit and Sustainability; Organised by Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab, India.	International	2-5 November, 2015
3.	A Study on Bond Slip Mechanism in Glass Fiber Reinforced Self Compacting Concrete	UKIERI Concrete Congress – Concrete Research Driving Profit and Sustainability; Organised by Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab, India.	International	2-5 November, 2015
4.	A Study on Bond Slip Mechanism in GFRSCC	Research Conclave’17; Organised by National Institute of Technology Warangal, Telangana, India.	National	17-18 March, 2017

5.	Bond Strength of Concrete made with Recycled Aggregates from Construction Demolition Waste	Telangana State Science Congress (TSSC-2018), Jointly Organised by Telangana Academy of Sciences and National Institute of Technology Warangal, Telangana, India.	National	22-24 December, 2018
6.	A Laboratory Study on Modified Bituminous Mixes with the Inclusion of Elvaloy Polymer	Transportation Research Efforts For Ecological Sustainability (TREES – 2018), Organised by Department of Civil Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, Telangana, India.	National	28-29 September, 2018
7.	Influence of Bar Properties on Bond Strength of Fiber Reinforced Self Compacting Concrete	Modern Concretes –Driving Profit and Sustainability (MCDPAS-2016); Organised by Department of Civil Engineering, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, Telangana, India.	National	26-27 August, 2016
8.	An Experimental Study on Bond Behaviour of Self Compacting Concrete	All India Seminar on New Developments in Use of Alternate Materials for Concrete (AMCON-2015); Organised by Indian Concrete Institute, Nagpur Centre, Nagpur, Maharashtra, India.	National	13-14 March, 2015

5.9. Sponsored research Projects: Nil

5.10 Consultancy Projects:

- 1) Report on Structural Stability of Existing Building for M/s. Qualitus Pharma Solutions Ltd., located at Bollaram, Hyderabad.
- 2) Report on Structural Stability of Existing Building for M/s. Rapid RMC Ltd., located at Beeramguda, Hyderabad.
- 3) Design of HD 40 grade Precast Manhole Cover for M/s. Rainbow Precast Products India Ltd., Hyderabad.
- 4) Design of mix proportions for various grades of concrete for M/s. KSR Crest LLP Ltd., Hyderabad.
- 5) Report on Structural Stability of Existing Building for M/s. MEIL Pvt. Ltd., located at Jubilee Hills, Hyderabad.
- 6) Design of mix proportions for various grades of concrete for M/s. Suryodaya Infra Projects (I) Pvt. Ltd., Hyderabad.
- 7) Design of mix proportions for various grades of concrete for M/s. Vanteru Infra Pvt. Ltd., Hyderabad.
- 8) Design and Development of Roof Support System for Underground mines for M/s. CSK Technologies, Hyderabad.
- 9) NDT Tests for Proposed R&D Block of Gland Pharma Ltd., at Pashamyalam, Patancheruvu, Sangareddy.

6. Awards / Honours received

- 1) Received Institute Fellowship from National Institute of Technology, Warangal, India for pursuing Doctoral Studies for four years (December 2013 to January 2017).

- 2) Received Institute Fellowship from National Institute of Technology, Warangal, India for pursuing M.Tech. for two years (July 2010 to June 2012).
- 3) Secured All India Rank 846 in GATE 2012 and All India Rank 1105 in GATE 2010.

7. Motto:

Begin with the end in mind.