

Name of Faculty Dr.G. MALLIKARJUNA RAO
 Designation Assistant Professor
 Nature of Job/Appointment Regular
 Date of Joining 05 - 02 -2024
 E-mail mallikarjunaraog_civil@cbit.ac.in



Education Qualifications	Name of the Degree	Class
Ph. D	Doctor of Philosophy (Civil Engineering)	Awarded
PG	M.Tech. (Structural Engineering)	I class
UG	B.Tech. (Civil Engineering)	I class

Work Experience

Teaching	6 Years 5 Months
Research	10 years 5 Months
Industry	--
Others	--
Area of Specialization	Structural Engineering
Professional Memberships	Life Member of Indian Concrete Institute- L.M. No: 12995 Life Member of Bamboo Society of India - L.M. No: 1256
Responsibilities held at Institution Level	1. Member Private Consultancy Works – Vardhaman College of Engineering (2018-2023) 2. Member GHMC TPQC works – Vardhaman College (2021 - 2023)
Responsibilities held at Department Level	1. HoD, Civil Engineering Department, Vardhaman College of Engineering (2018 July to 2023 March) 2. NAAC Coordinator (Dept. level), Vardhaman College of Engineering (During A.Y. 2018-23) 3. NBA Coordinator (Dept. level), Vardhaman College of Engineering (During A.Y. 2018-23)
Research Guidance	--
Courses Handled at Under Graduate / Post Graduate Level.	Design of Reinforced Concrete Structures, Design of Steel Structures, Strength of Materials-I, Concrete Technology, Fluid Mechanics, Hydraulics and Hydraulic Machines, Repair and Rehabilitation of Structures, Green Building of Sustainability, Theory of Elasticity, Finite Element Analysis, Advanced Concrete Technology, Concrete Technology Lab, Strength of Materials Laboratory and Advanced Concrete Technology Laboratory
No. of Papers Published	National Journals – NIL International Journals – 16 National Conferences – 5 International Conferences – 8
Projects Carried out	1. Completed 2.5 lacks funding project under JNTUH TEQIP PHASE-III titled “Physio-chemical studies on geopolymers treated expansive soils for pavement applications”. 11th July 2019. 2. Establishment of Concrete Laboratory worth of 14 lakhs funding project under AICTE-MODROBS (Modernization of Concrete Technology Laboratory)
Patents	02 (Published)
Technology Transfer	
Invited Speaker (Few Important/Prominent)	1. Delivered a lecture on “Concrete Technology” at K.G Reddy College of Engineering, Hyderabad on 21st September 2019. 2. Delivered a lecture on “Geopolymer Concrete and its applications”, at Jayamukhi Institute of Technological Sciences, Warangal, RACE-2020 on 9 th JUNE to 13 th JUNE 2020. 3. Delivered a lecture on “Mix design Methodology of Geopolymer Concrete”, at Geetanjali Institute of Science and

No. of Books/Chapter Published with details

Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops. Other Trainings (Attended and/or Organized).

Details of Journal Publications/Conferences (National and International)
International Journal

- Technology, on Recent Trends in Civil Engineering dated 10th JUNE to 12th JUNE 2020.
4. Delivered a lecture on "Mix design Methodology of Geopolymer Concrete", at THE RAMCO CEMENTS LIMITED dated 29th July 2020.
 5. Session Chair in International Conference on Emerging Trends in Civil Engineering-2K21 organized by Department of Civil Engineering on 6th and 7th August 2021.
 6. Conference Review Committee of 2nd INTERNATIONAL CONFERENCE on Sustainable Construction Technologies and Advancements in Civil Engineering, ScTACE 2021, dated on 14/10/2021 to 16/10/2021.
 7. Conference Chair of First International Conference on Latest Trends in Management Entrepreneurship, Engineering & Sciences ICMESS-2022 organized by Acharya Institute of Graduate Studies, Bengaluru, Karnataka, India & RSP Research Hub, Coimbatore, Tamil Nadu, India on 29th & 30th April 2022.
 8. Session Chair in International Conference on Emerging Trends in Civil Engineering-2K22 organized by Department of Civil Engineering on 06th & 07th August 2022.
 9. Session Chair in one of the technical sessions for Two days International Conference on "Innovative Technology for smart Construction Materials and
 10. Sustainable Infrastructure", ITSCMSI -2022. VR Siddhartha Engineering College in online Mode, 14th & 15th October 2022 is Organized under ICI- VRSEC Student Chapter.
 11. Expert in SMART India Hackathon, 2022, GRAND FINALE 2022 at Vardhaman College of Engineering, dated on 25/08/2022 to 26/08/2022.
 1. G. Mallikarjuna Rao, T.D. Gunneswara Rao, Ramaseshu D, M. Siva Nagi Reddy, "A Study on Strength and Performance of Geopolymer Concrete subjected to Elevated Temperatures", Recent Advances in Structural Engineering, Volume 1, Lecture Notes in Civil Engineering 11, 2019.
 2. G. Mallikarjuna Rao, C.M. Kireety "Durability Studies on Alkali Activated Fly Ash and GGBS-Based Geopolymer Mortars". Sustainable construction building Materials, Lecture notes in Civil Engineering. 25, 2019.
 3. G. Mallikarjuna Rao, Sunil Nandipati, G. V. R. Srinivasa Rao "Performance Evaluation of Ternary Blended Alkali-Activated Mortars Incorporated with Industrial Waste Byproducts—A Step Toward Sustainability", Low Carbon Materials and Technologies for a Sustainable and Resilient Infrastructure-CBKR 2023
 1. Conducted one week FDP program organized on Raising awareness on Consultancy in Civil Engineering, dated from 26th Nov 2018-1st December 2018.
 2. Conducted one week FDP program organized on Revit architect in civil Engineering dated from 2nd December to 8th December 2019.
 3. Conducted one-week student training program on "Survey Boot Camp Using Total Station, Satellite Image from ISRO" with collaboration of Vaanahaa Educational Institute, from 26.12.2022 to 31.12.2022.
 4. Organized one-week student training program on "BIM using Revit" from 04.07.2022 to 09.07.2022.
 - 5.

1. G. Mallikarjuna Rao, T. D. Gunneswara Rao, "Final Setting Time and Compressive Strength of Fly ash and GGBS based Geopolymer Concrete", The Arabian Journal for Science and Engineering (2015) 40:3067–3074, DOI 10.1007/s13369-015-1757-z.
2. G. Mallikarjuna Rao, T. D. Gunneswara Rao, Ramaseshu D, "Mix proportioning of geopolymer concrete", Number 6 – November-December 2015. Cement Wapno Beton 2016.
3. G. Mallikarjuna Rao, M. Vinothini, T.D. Gunneswara Rao, Ramaseshu D, "Bond Strength Behaviour of Geopolymer Concrete", Malaysian Journal of Civil Engineering 27(3):35-45 (2015).
4. T.D. Gunneswara Rao, P. Alfrite, G. Mallikarjuna Rao, "Fracture Parameters of Fly Ash and GGBS Based Geopolymer Concrete", Applied Mechanics and Materials Vols 764- 765 (2015) pp 1090-1094.
5. G Venkatesh, G. Mallikarjuna Rao, T.D. Gunneswara Rao, "Effect of Na₂SiO₃/NaOH on compressive strength of fly ash and GGBS based geopolymer mortars", International Journal of Engineering Research in Mechanical and Civil Engineering (IJERMCE), Vol 2, Issue 3, March 2017: ISSN (Online) 2456-1290.

6. G. Mallikarjuna Rao, T.D. Gunneswara Rao, "Effect of Fly ash and GGBS combination on mechanical and durability properties of GPC", *Advances in Concrete Construction, An International Journal*, Volume 5, No. 4 (2017).
7. G. Mallikarjuna Rao, T.D Gunneswara Rao, "A Quantitative method of approach in designing the mix proportions of Fly ash and GGBS based geopolymer concrete", *Australian journal for Civil Engineering*, 2018, <https://doi.org/10.1080/14488353.2018.1450716>.
8. G. Mallikarjuna Rao, "Impact of bacillus subtilis on strength properties of different grades of concrete". *Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)*, May 2022. DOI:10.17605/OSF.IO/Z2K5M.
9. G. Mallikarjuna Rao, "A Study on Partial Replacement of Cement by Aluminum Powder in Polypropylene Fiber Reinforced Concrete". *IOP Conference Series: Earth and Environmental Science*. DOI:10.1088/1755-1315/1086/1/012015.
10. G. Mallikarjuna Rao, "Analysis of Rheological Characteristic Studies of FlyAsh-Based Geopolymer Concrete." *Buildings*, Buildings 2023, 13, 811. <https://doi.org/10.3390/buildings1303081>.
11. G. Mallikarjuna Rao "Artificial Neural Networks, A Tool for Predicting Compressive Strength of Recycled Aggregate Concrete". *IOP Conference series: Earth and Environmental Science* – 1130 (2023)012016, DOI: 10.1088/1755-1315/1130/1/012016.
12. G. Mallikarjuna Rao "Optimization of fluid viscous damper Diagonal & Combined bracing arrangement in G+9 RCC structure." *IOP Conference series: Earth and Environmental Science*. DOI: 10.1088/1755-1315/1086/1/012024.
13. G. Mallikarjuna Rao "Durability aspects of geopolymer mortar using Single Alkaline activator solution." *IOP Conference series: Earth and Environmental Science*. DOI: 10.1088/1755-1315/982/1/012001.
14. G. Mallikarjuna Rao "Comparative study on Progressive collapse analysis of RC frame buildings subjected to wind and seismic loads." *IOP Conference series: Earth and Environmental Science*. DOI: 10.1088/1755-1315/982/1/012071.
15. G. Mallikarjuna Rao "Study on mechanical characterization of geopolymer cement mortar with single solution and combined solution." *Journal of Xi'an University of Architecture & Technology*. Pp. 481-487 Vol. XII ISSN No. 1006-7930 – 2020.
16. G. Mallikarjuna Rao "Strength and Durability Characteristics of GGBS Geopolymer Stabilized Black Cotton Soil." *Material today proceeding Vol No. 43*. DOI: 10.1016/j.matpr.2021.01.939 – 2021.

International Conferences:

1. G. Mallikarjuna Rao, M. Venu, T.D. Gunneswara Rao, "Development of Geopolymer Concrete by Incorporating Fly ash and GGBS", *The International Conference on Environmentally Friendly Civil Engineering Construction and Materials* (2013).
2. G. Mallikarjuna Rao, Alfrite, T.D. Gunneswara Rao, "Fracture Parameters of Fly Ash and GGBS based Geopolymer Concrete" *International Conference on Applied Science and Engineering 2014 (ICASE2014)*.
3. G. Mallikarjuna Rao, T.D. Gunneswara Rao, A. Venkatesh, Ajay "Comparative studies on physical and mechanical properties of geopolymer mortar and cement mortar" *UKIERI Concrete Congress* November 2015.
4. G. Mallikarjuna Rao, T.D. Gunneswara Rao, "Sulphuric acid and Nitric acid attack on Fly ash and GGBS based Geopolymer Concrete", *International Conference - Trends and Recent Advances in Civil Engineering (TRACE-2016)* organized by Amity School of Engineering and Technology, Uttar Pradesh, India.
5. G. Mallikarjuna Rao, T.D. Gunneswara Rao, Ramaseshu D, "The Effect of Fly ash and GGBS based combination on Mechanical properties of Geopolymer Concrete", *International Conference on Advances in Construction Technology Materials and Construction Practices (CTMC - 2016)*.
6. G. Mallikarjuna Rao, T.D. Gunneswara Rao, G. Venkatesh "Effect of Na₂SiO₃/NaOH on Compressive Strength of Fly ash and GGBS based Geopolymer Concrete", *International Conference on Emerging Technology in Structural Engineering (ETSE- 2017)*, 17th-18th March, 2017, Nagpur.
7. G. Mallikarjuna Rao, T.D. Gunneswara Rao, "Mechanical Properties of Fly ash and GGBS based Geopolymer Concrete", *International Conference on Advances in Concrete Structural and Geotechnical Engineering*, February 26-28, 2018, BITS PILANI.
8. G. Mallikarjuna Rao, "An Investigation of the Bio-Medical Waste Ash on Cement Mortar Bricks". *An International Conference on Advances in Materials, Mechanics & Manufacturing (IC4M 2023)* (Accepted).

National Conferences

1. G. Mallikarjuna Rao, Ramaseshu D, Vinothini M, "Bond Strength of Geopolymer Concrete" *National Conference on Recent Research Advances in Civil Engineering*, 2014.
2. G. Mallikarjuna Rao, T.D. Gunneswara Rao, "Effect of Na₂SiO₃/NaOH on Compressive Strength of Fly ash and GGBS based Geopolymer Pastes", *National Conference – Modern Concretes – Driving Profit and Sustainability 2016*.
3. G. Mallikarjuna Rao, T.D. Gunneswara Rao, "Effect of Na₂SiO₃/NaOH on Compressive Strength of Fly ash and GGBS based Geopolymer Concrete", *National Conference – Civil Engineering Conference-Innovation for Sustainability (CEC – 2016)*.
4. G. Mallikarjuna Rao, T.D. Gunneswara Rao, Ramaseshu D, M. Siva Nagi Reddy, "A Study on Strength and Performance of Geopolymer Concrete subjected to Elevated Temperatures", *International Conference – Structural Engineering Convention (SEC – 2016)*.
5. G. Mallikarjuna Rao, Srujan R, K Sridhar Reddy "Effect of GGBS content on age of fly ash and GGBS based geopolymer Mortar", *National Conference – Recent innovations in civil Engineering (RICE-2017)*.

