



# **Gokaraju Rangaraju Institute of Engineering and Technology**

## **Department of Civil Engineering**

### **Summary of Research Projects**

S.No.	Title of the R&D Project or Research Grant	Sanctioning Agency, and Date of Sanction	Names of the Principal and Co-Investigators	Total Sanctioned Amount Rs.	Status of the Project (Completed/Ongoing)
1.	Characterization And Performance Evaluation Of Ultra-High Strength Steel Fibre Reinforced Reactive Powder Concrete For Structural Applications	NCC Ltd	Dr. V Srinivasa Reddy Dr K Satyanarayana	7,50,000	Ongoing 5 yr (2019-2024)
2.	Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST) Program	DST	Dr J Praveen and Dr V Mallikarjuna Reddy	99,00,000	Ongoing 5 yr (2018-2023)
3.	Modernization & Removal Of Obsolescence	AICTE	Dr. GVV Satyanarayana	9,08,010	Completed 1 yr (2019-2020)
4.	Microbially Induced Calcite Precipitation for Crack Remediation in Concrete Structures	JNTUH TEQIP III	Dr. V Srinivasa Reddy	2,99,000	Completed 1 yr (2019-2020)
5.	Rehabilitation of Concrete with Bacteria (Bacterial Concrete)	Pachayat Raj, Kandukur, Andhra Pradesh	Dr. V Srinivasa Reddy	2,00,000	Completed 2 yr (2017-2019)
6.	Studies on the properties of nano-silica based self-compacting concrete	LANCO Technology Park	Dr. V Srinivasa Reddy	1,00,000	Completed 2 yr (2017-2019)

**Total Received funds= Rs. 1,21,57,010/-**



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Title of the Project : **Modernization & Removal of Obsolescence**  
Funding Agency : AICTE  
Project Coordinator : Dr. GVV Satyanarayana  
Amount Sanctioned : Rs.9.65 lakhs  
Project Status : Completed  
Duration : 1 yr. (2019-2020)

### **Outcome of the Project:**

1. Identification of spore-forming alkaliphilic calcite precipitating bacteria which has high urease activity and high carbonate forming capacity in concrete structures.
2. Development of a process/technology for formation of bacterial concrete which can regain strength after remediation of cracks in concrete based on MICP mechanism and is also highly impermeable.
3. Publications in reputed journals
4. A Patent
5. Consultancy



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Title of the Project : Microbially Induced Calcite Precipitation for Crack Remediation in Concrete Structures  
Funding Agency : JNTUH TEQIP III  
Principal Investigator : Dr. V Srinivasa Reddy  
Amount Sanctioned : Rs. 2.99 lakhs  
Project Status : Completed 1 yr. (2019-2020)



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Title of the Project : Rehabilitation of Concrete with Bacteria (Bacterial Concrete)  
Funding Agency : Pachayat Raj, Kandukur, Andhra Pradesh  
Principal Investigator : Dr. V Srinivasa Reddy  
Amount Sanctioned : Rs. 2.00 lakhs  
Project Status : Completed 2 yr. (2017-2019)



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Title of the Project : Studies on the properties of nano-silica based self-compacting concrete  
Funding Agency : LANCO Technology Park  
Principal Investigator : Dr. V Srinivasa Reddy  
Amount Sanctioned : Rs.1.00 lakhs  
Project Status : Completed 2 yr. (2017-2019)