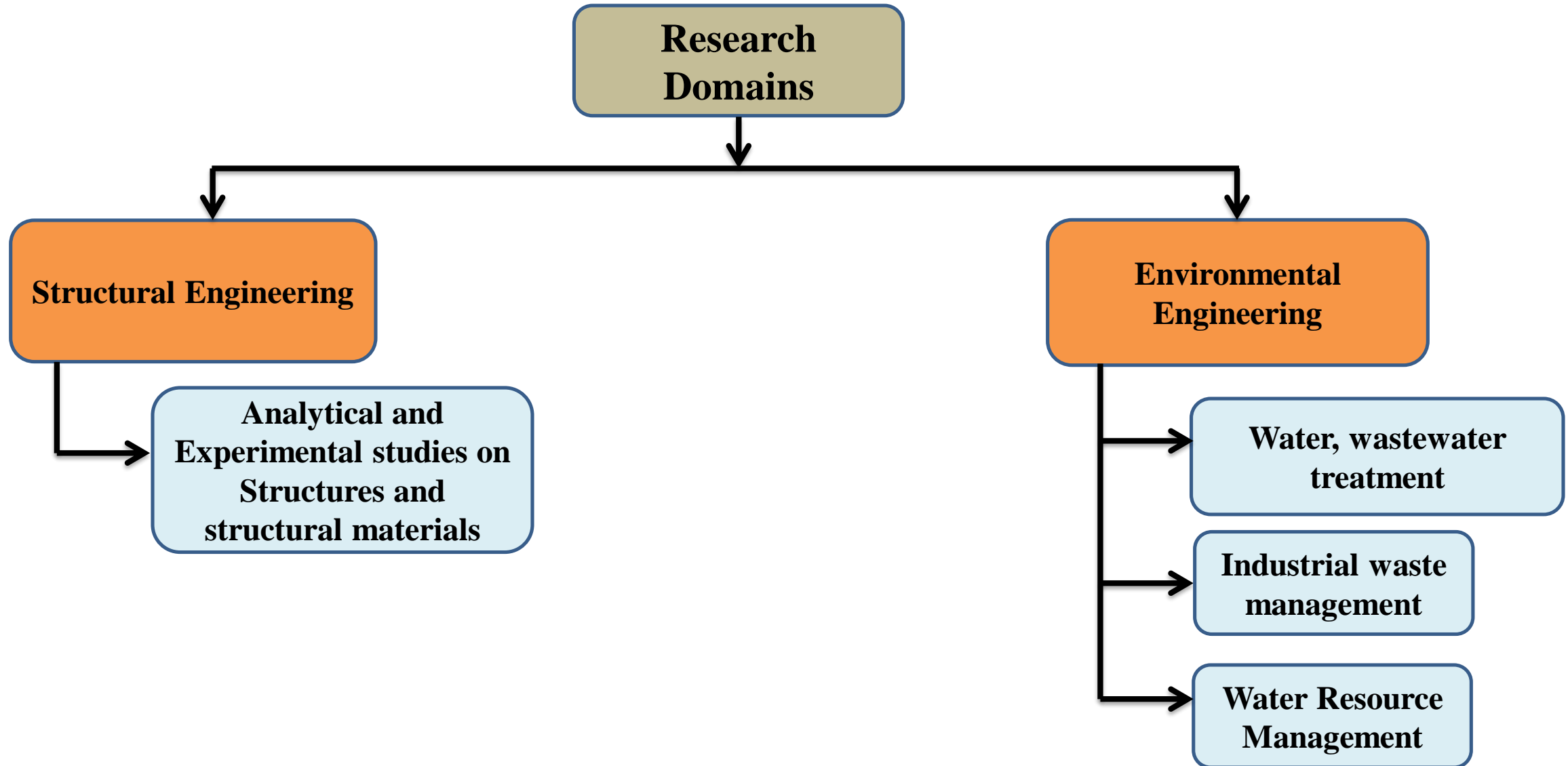


Research Group Presentation of Civil Engineering Department

Faculty Research Details

#	Name of Faculty	Qualification	Designation	Star Lab Alignment	Thematic group	Research status
1.	Dr. M. Manjunath	Ph.D	Professor	--	Structural Engineering	ERG Guiding -01(VTU)
2.	Dr. VeerendraKumar Khed	Ph.D	Asso. Prof.	--	Structural Engineering	ERG
3.	Dr. Chidanand Patil	Ph.D	Asso. Prof.	--	Environmental Engineering	ERG
4.	Dr. Tejas D. Doshi	Ph.D	Asst. Prof.	--	Structural Engineering	ERG
5.	Dr. Nayana P. Hoolikantimath	Ph.D	Asst. Prof.	--	Environmental Engineering	ERG
6.	Nikhil A. Jambhale	M.Tech	Asst. Prof.	--	Structural Engineering	--
7.	Smt. Veena Savanth	MSc Engg	Asst. Prof.	--	Water Resource Engineering	IREF Mentor: Dr. P. A. Ghorpade
8.	Smt. Rekha Kinagi	M. Tech	Asst. Prof.	--	Structural Engineering	IREF Mentor: Dr. Veerendra
9.	Smt. Niveditha Madinur	M.Tech	Asst. Prof.	--	Transportation Engineering	--
10.	Shivanand Mendigeri	M.Tech	Asst. Prof.	--	Structural Engineering	IREF Mentor: Dr. M.Manjunath
11.	Kiran Hubli	M.Tech	Asst. Prof.	--	Structural Engineering	IREF Mentor: Dr. Tejas Doshi
12.	Mr. Mallikarjun Indi	M.Tech	Asst. Prof.	--	Construction Management	--



Structural Engineering

Analytical and experimental studies on structures and structural materials

Research Area: Analytical and experimental studies on structures and structural materials

Researchers

1. ERG: 1. Dr. M. Manjunath 2. Dr. Tejas D. Doshi 3. Dr. Veerendrakumar C Khed
2. IREF: 1. Nikhil Jambhale 2. Shivanand Mendigeri 3. Kiran Hubli 4. Rekha Kinagi

Addressed Research Topics:

- Analytical and experimental studies on alternative reinforcement
- Seismic and wind effects on special structures : Tunnels
- Applications of Nano-materials in construction
- Sustainable construction materials

Strength: Existing Lab facilities, Material testing through collaborative institutes

Opportunities:

Interdisciplinary projects, Collaborative research

Structural Engineering Vertical Publications:

Structural Engineering

	Faculty Publications			
	2024	2023	2022	2021
Journals				
Q1	1	2	3	0
Q2	1	2	2	0
Q3	0	0	0	0
Q4	0	0	0	0
Total	2	4	5	0
Conferences				
Q1	0	0	0	0
Q2	0	0	0	0
Q3	0	2	0	0
Q4	1	9	2	1
Total	1	11	2	1
Grand total	3	15	7	1

Patents: 01

Dr. Tejas Doshi and Prof. Nikhil A Jambhale

Patent No. 202441048042A

Title: Ultra High Performance concrete (UHPC) formulation of high strength applications

Date of publication: 28-06-24

Sanctioned Projects: NIL

Awards:

Dr. Tejas D. Doshi

1. Received best paper award for the project entitled “Effect of Silica Fume on the performance of Bacterial Concrete”, in International Conference on Contemporary and Sustainable Infrastructure: ICCSI - 21., May 2021.

Collaborations: Collaborative research with College of Engineering, Prince Sultan University, Riyadh, Saudi Arabia

Any other Key Achievements: NIL

Research Plan for the next 3-5 years:

- Post cracking analysis to assess residual life of RC members
- Flexural and Shear strengthening of RC beams using alternative reinforcement
- Seismic and wind effects on special structures : Tunnels
- Studies on 3D printable concrete
- Sustainable Concrete for Specific applications; crash barriers, machine foundation
- Sustainable Engineered Cementitious composite

Structural Engineering

Publications Targets for 2024:

Journals	2024	2025
Q1	1	2
Q2	1	2
Q3	2	4
Q4	2	3
Conferences	4	3
Total	10	14

Structural Engineering

Projects Planned:

Enhancement of Structural performance of RC flexural members with hybrid reinforcement bars under thermal loads.

Performance Evaluation of Self Compaction Concrete using Titanium Dioxide.

Optimization of alternative bundled bars for Development length and bond behavior in RCC using DOE.

Improvement of self healing capacity of sustainable cementitious composites

Collaborations: Collaborative research with College of Engineering, Prince Sultan University, 11586, Riyadh, Saudi Arabia

Environmental Engineering

Research Area: Water, wastewater treatment, Industrial waste management and Water Resource Management

Researchers

1. SRG: Dr. Praveen A. Ghorpade
2. ERG: Dr. Chidanand. M. Patil
3. ERG: Dr. Nayana P. Hoolikantimath
4. IREF : Veena D Savanth
5. Prof. Prasad G. Hegde.

Addressed Research Topics:

- Wastewater treatment using natural adsorbents, constructed wetlands
- Synthesis of materials for environmental remediation and its utilization in the treatment of water
- Sustainable use of Industrial waste in developing innovative construction materials
- Drought Risk Assessment and Desertification for Central part of Karnataka state
- Impact on climate change due to changes in land use and land pattern

Strength: Existing Lab facilities, Availability of software for model studies, Collaboration with other institutes/industries.

Opportunities: Huge scope for SDG in industries in terms of carbon credits with specific work.

Target Conference / Journals : International Journal of Metal Casting – IF- 2.6, Q2

Construction and Building Materials – IF- 7.4, Q1

Emergent Materials – IF- 3.8, Q2

Journal of applied water Science-IF-5.5, Q2

Journal of hydroinformatics – IF- 2.7, Q2

Environmental Engineering Vertical Publications:

Environmental Engineering

	Faculty Publications			
	2024	2023	2022	2021
Journals				
Q1	0	1	3	0
Q2	1	4	0	1
Q3	0	1	1	0
Q4	0	0	1	0
Total	1	6	5	1
Conferences				
Q1	0	0	0	0
Q2	0	0	0	0
Q3	0	2	0	0
Q4	4	2	3	0
Total	4	4	3	0
Grand total	5	10	8	1

Patents: NIL

Sanctioned Projects: NIL

Internal Funding: Applied 3 CBP

External Funding: Applied 1 DST proposal

Awards:

Dr. Chidanad Patil.

1. Received best project of the year award for the project entitled “Optimization and Removal of Cd, Ni, and colour from aqueous solution using bio-adsorbent (Syzygium polyanthum leaves)”, Department of Science and Technology, Government of Karnataka and Department of Science and Technology, Government of India., August 2021

Collaborations:

1. Aqua Alloys Pvt. Ltd, Shinoli, Maharashtra.
2. Hindalco Industries Pvt. Ltd., Belagavi.
3. Hanyang University Seoul
4. National Institute of Hydrology, Belagavi.
5. Centre for Natural Disaster Management and Skill Development, Belagavi.
6. Srinidhi Institute of Science and Technology, Hyderabad, Telangana

Any other Key Achievements: NIL

Environmental Engineering

Research Plan for the next 3-5 years:

1. Modifying the structural characteristics of calcium oxide for its effective stabilization and yielding high capacity CO₂ absorption.
2. Developing the process for silica purification
3. Groundwater quality analysis of Nalgonda district, Telangana.
4. Water Resource Management and Climate Change impact, Monitoring the climatic and environmental parameters that affect for scheduling cultivation and irrigation routines for optimal productivity in central part of Karnataka.

Publications Targets for 2024 and 2025:

Journals	2024	2025
Q1	-	-
Q2	4	4
Q3	-	-
Q4	1	1
Conferences	3	2
Total	8	7

Projects Planned:

1. Solvent based systems for silica purification.
2. Ca/Si systems for CO₂ absorption.
3. Optimization of raw materials for sustainable bricks/cladding tiles production from Industrial waste
4. Groundwater quality analysis of Nalgonda district, Telangana.
5. Removal of colour in wastewater using various adsorbents
6. Drought Risk Assessment and Desertification for Central part of Karnataka state

Department Publication details

	Faculty Publications			
	2024	2023	2022	2021
Journals				
Q1	1	3	6	0
Q2	2	6	2	1
Q3	0	1	1	0
Q4	0	0	1	0
Total	3	10	10	1
Conferences				
Q1	0	0	0	0
Q2	0	0	0	0
Q3	0	4	0	0
Q4	5	11	5	1
Total	5	15	5	1
Total Publications (Journal and Conference)				
Q1	1	3	6	0
Q2	2	6	2	1
Q3	0	5	1	0
Q4	5	11	6	1
Grand total	8	25	15	2

Thank You