



School of Studies in Engineering & Technology

Department of Civil Engineering

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Name: Mrs. Sonal Banchhor

Qualifications:

- **Ph.D.** (Structural Engineering, Pursuing), National Institute of Technology, Raipur
- **M Tech** (Structural Engineering), Bhilai Institute of Technology, Durg, (C.G.)
- **BE** (Civil Engineering), Bhilai Institute of Technology, Durg, (C.G.)

Area of Interest/Specialization:

- Structural Design, Use of marginal materials in concrete for their higher utilization

Experience

- Assistant Professor, 24 February 2020 to till date

Awards and Honors:

- M Tech (Honors) 79%
- 2nd Position in University

Publications:

- **Sonal Banchhor**, Meena Murmu, SV Deo “Combined effect of Fly Ash & GGBS on performance of Alkali Activated concrete” doi.org/10.1007/s4102-022-00170-5 **Journal of Building pathology & Rehabilitation (2022) Springer (Scopus).**
- **Sonal Banchhor**, Shruti Shikha Shrivastava, Rajat Tiwari, “Experimental Investigation on Bacterial Concrete for Sustainable Construction in India” doi.org/10.48047/nq.2022.20.22. NQ10012, **NeuroQuantology (2022) (Scopus).**
- **Sonal Banchhor**, Meena Murmu, SV Deo, “Evaluating the properties of Alkali Activated Concrete with fly Ash, lime & ggbs” International Review of Applied Sciences & Engineering. (**SCI Mago**).

- **Sonal Banchhor**, Meena Murmu, SV Deo “Alkali-Activated Slag/ Fly Ash Concrete: Mechanism, Properties, Hydration Product and Curing Temperature” International Journal of Innovative Technology and Exploring Engineering ISSN: 2278-3075, Volume-9 Issue-9, July 2020 (**Scopus**).
- **Sonal Banchhor**, MK Gupta “Experimental Investigation on Bolted cold formed steel angle under tension” International Journal of Engineering Sciences & Research Technology July 5 2016 ISSN: 2277-9655
- **Sonal Banchhor**, Meena Murmu, SV Deo “Role of mineral admixtures and chemical admixtures in concrete” International Journal of Advance Research ideas and innovations In Technology, ISSN: 2454-132X (Volume 4, Issue 6)
- **Sonal Banchhor**, Meena Murmu, SV Deo “A detailed review Alkali activated slag and flyash based concrete” International Conference on Civil and Mechanical Engineering ISSN: 2456- 1290 Volume 2, Issue 12, December 2017
- **Sonal Banchhor**, Meena Murmu, SV Deo International journal of innovative technology and exploring engineering. Alkali-Activated Slag/ Fly Ash Concrete: Mechanism, Properties, Hydration Product and Curing Temperature ISSN: 2278:3075, 2021(**Scopus Index**)
- **Sonal Banchhor**, Meena Murmu, SV Deo presented a paper titled “A detailed review Alkali activated slag and flyash concrete” International **conference** on Civil and Mechanical engineering at Gangtok (2017)
- **Sonal Banchhor** National conference Presented a paper on Investigation on Bolted cold formed steel angle under tension on Emerging Trends in Civil Engineering at Bhilai Institute of Technology Durg (C.G.)

Patent Details

- **Sonal Banchhor**, Dr. M. Nithya, Dr. Om Prakash Singh, Prof. Saurav Kar, Vishal Akula, Dr. N.P. Vignesh, Dr. Teegala Siva Sankar Reddy, Kadali Srinivasa Rao have published an Indian patent entitled “High Performance geopolymer concrete and preparation method thereof”.
- Ommi Suresh, **Sonal Banchhor**, Ms. Shilpi SippiBhuinyan, Dr. Vinay Kumar Gaddam, Sanjith J, Dr. Kiran B.M, Dr. C. Venkata Siva Rama Prasad, Mr. Jash Nimesh Kansara have published an Indian patent entitled “Method for the determination of flexural behaviour of reinforced concrete beam”.
- Prashant Birbal, Aaron Anil Chadee, Srinivasa C H, Chemikala Datta Abilash Reddy, Avatala Mabureddy, Dr. Shri Rama Krishna Mishra, Dr. Teegala Siva Sankar Reddy, **Sonal Banchhor**, Dr. C. Venkata Siva Rama Prasad have published an Indian patent entitled “Development of Eco-friendly Self Curing Concrete for a futuristic Technology”.

- **Sonal Banchhor** published an Indian patent entitled “Device to Monitor Theft by identifying Salient Object

Research Supervision:

- On Going M Tech – 01
- Guided B Tech -02

Responsibilities

University Level

- Warden of Rajmohini Devi Girls Hostel

School level

- In charge of Co-curricular, extracurricular activities and all other activities related to students

Department Level

- In charge of Annual Report from 2021 to till date.
- In charge of NBA Criteria 7 from 2021 to till date.
- In charge of monthly Report preparation from 2022 to till date
- In charge of Co-curricular, extracurricular activities from 2021 to till date.
- In charge of Industrial tours, workshops, T& P Activities from 2021 to till date.
- In charge of Lab equipment procurement from 2021 to till date.
- In charge of Sama Mentoring B. Tech 1st Year Students till date
- Incharge of Sama Mentoring M Tech 1st Year students 2021-22
- Incharge of Sama Mentoring M Tech 1st Year students 2022-23
- Scrutiny committee member for the dept of ITE & CSE 2022
- Scrutiny committee member for the dept of Management 2022
- Building Verification committee member for the new girls hostel 2022
- Anti Ragging Committee member 2022-23
- Coordinator of Departmental News letter
- Faculty Adviser M-Tech 2022-23
- M Tech Document verification committee member 2022
- Ph.D. Document verification committee member 2022

Additional Information

Life Membership

- The Institution of Engineers

Attended

- **FDP - 25**
- **Workshops- 10**
- **Seminar - 05**