Brief CV

1. **Name:** Er. Rajesh Kumar
2. **Date of Birth:** 15.01.1992
3. **Email:** rajeshkumar.cbri@csir.res.in
4. **Tel.:** 01332-283238, +91- 8535005087
5. **Brief Introduction**

He commenced his journey at CSIR-CBRI, Roorkee, serving as a **'Trainee Scientist'** from **Sept.' 2012 to Jan.' 2016**. He then progressed to **'Scientist-C',** contributing to R&D from **Jan.' 2016 to Jan.' 2020** for 4 years. Further, as a **Senior Scientist (January 2020 – January 2024),** he has contributed to advancements in building materials and concrete technology. Currently, he holds the position of **'Principal Scientist',** which he has held since **January 2024.** Additionally, he took on leadership responsibilities as the **Head of Organic Building Materials Division from January 2022 to March 2023**, followed by **Associate Head, Advanced Concrete, Steel & Composites (ACSC) Division** since **August 2024.**

He is working in the field of **Civil Engineering**, with a specialization in *Stone Waste, Low Carbon Cement, LC^3 – Limestone Calcined Clay Cement, Lightweight concretes, Wastes utilization, Statistical modelling, Clinker Synthesis, Polymer- cement interaction, Stabilized mud composite, Waterproofing admixtures, and Microstructure & Hydration of cementitious materials*. He did his **B. Tech. (Hons.)** in '*Civil Engineering' in 2012* from 'Madan Mohan Malaviya University of Technology, Gorakhpur (Uttar Pradesh), India'. He has obtained his **M. Tech. (Distinction)** in the field of '*Building Engineering & Disaster Mitigation*' in 2014 from the 'Academy of Scientific and Innovative Research (AcSIR, Chennai, India)'. In January' 2026, he has submitted his **PhD thesis** at 'Department of Structural Engineering, IIT Delhi' in the area of Limestone Calcined Clay Cement (LC^3).

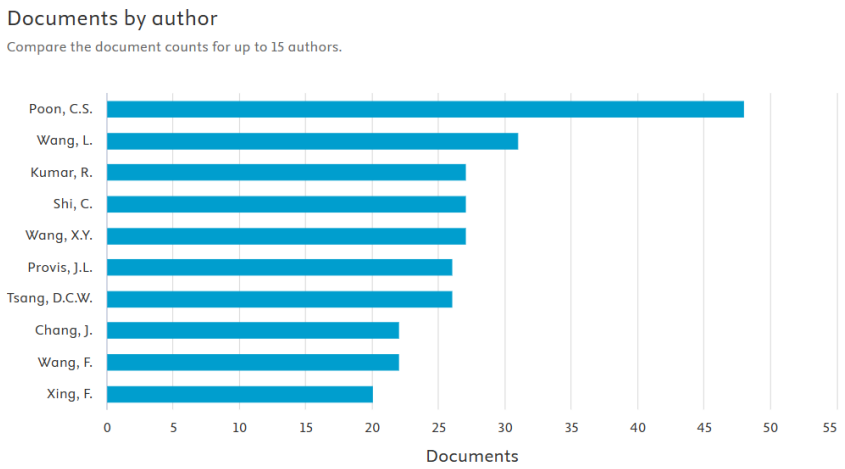
He has made a few contributions to his profession via his intense interest in research and academic endeavors. *He has published **55+** SCI & Scopus indexed papers/ book chapters. He has presented **40+** technical papers and **15+** Expert/Institutional Lectures at various National and International conferences including IITs.* He has participated in over **40** webinars, certificate courses, and training. *He has contributed to the filing of 02 patent (with 01 IDF filed additionally), along with transferring of **07** technologies*. He has been the recipient of 'Achievement Award for Scientist- 2024' by CIDC established by Planning Commission (Now NITI Aayog), Govt. of India; Young Engineers Award: 2022–23 by 'The Institution of Engineers, Govt. of India, 08 Best/ Outstanding Research Paper Awards, 01 Best Technology Award for contributions in Civil Engineering Research. He has accomplished different R&D projects sponsored by the *Council of Scientific & Industrial Research (CSIR), Department of Science and Technology (DST), Ministry of Environment, Forest, and Climate Change (MoEF&CC), Indo-U.S. Science and Technology Forum (IUSSTF)*etc. along with several Industries sponsored projects (from *M/s. Reliance Industries Limited, India, M/s. Apple Chemie India Pvt Ltd., M/s. Rivashaa Eco Design Solutions P. Ltd.,Ahmedabad, Gujarat, India* etc.).

Total articles: **55+ Nos. (Affiliation as CSIR-CBRI, Roorkee, India)**
Citations: 1001
h- index: 18
i10- index: 30
Source:
https://scholar.google.co.in/citations?user=Nb2BsRIAAAAJ&hl=en

He is contributing towards 03 Sustainable Development Goal (SDGs), which are-

i. ***Goal 9: Industry, Innovation and Infrastructure***
ii. ***Goal 11: Sustainable Cities and Communities***
iii. ***Goal 12: Responsible Consumption and Production***

He has worked on different R&D projects on 'waste utilization' at CSIR-CBRI and majorly contributed for technology transfer on Low-grade limestone waste. In 2018; India's first start-up plant for Low-grade limestone waste management; recognized by Central and State government (under Start-up Policy- 2017, Waste to Wealth and Swachh Bharat Abhiyan) was inaugurated in Kota, Rajasthan. The plant has the capacity to manufacture 8,000 flooring tiles, 3,500 pavers and 5,000 bricks daily from the slurry. It can use up to 100 Ton Low-grade limestone waste per day. Recently, in Jan' 2024; he has contributed to transfer of 02 more technologies i.e. "Low-Carbon Cement Concrete Composites using Sustainable Chemical Admixtures" and "Innovative Cool Roof" to M/s. Litagg Industries Pvt Ltd, Gujarat, India. All the above technologies have been implemented in the field to utilize the waste materials along with the low carbon cement to develop sustainable lightweight building products and roof screed etc. Apart from the above technology dissemination; as it is well known that '**Low Carbon Cement'** is one of the Top 10 Emerging Technologies as per World Economic Forum Report- 2020 (Source: https://www3.weforum.org/docs/WEF_Top_10_Emerging_Technologies_2020.pdf). Therefore, keeping this in mind; CSIR- CBRI is doing comprehensive R&D work to develop/synthesize low carbon and low energy new as well as conventional binders using different kinds of waste materials. As a result of his research contributions, he is among one of the few contributors in the field of '**Low Carbon Cement'** ***(as per the Elsevier/ Scopus database).***



International status

He is an active member of different National and International scientific/ technical societies such as- *The International Union of Laboratories and Experts in Construction Materials, Systems and Structures (RILEM), American Concrete Institute (ACI), Indian Concrete Institute (ICI), The Institution of Engineers (India), American Society of Civil Engineers (USA), ASTM International and The Indian Science Congress Association (ISCA)*. He is an active reviewer fornumerous SCI indexed journals, published by *Elsevier, ASCE, Springer, Taylor and Francis*etc. He is also making contributions to the strategic sector by serving as a member of eight Bureau of Indian Standard committees. In addition to his scholarly research pursuits, heactively engages with the academic community. He has contributed to the spread of knowledge by guiding students and delivering lectures on topics related to his area of expertise. He has successfully guided **15+** student's dissertation/thesis at different academic levels (UG & PG). He is currently guiding **02** PhD scholars in 'Low Carbon Cement' and 'Lightweight Concrete'.He has engaged in a diverse array of both curricular and extra-curricular pursuits such as- organizing the workshops, seminars etc.

Official CV: https://cbri.res.in/scientific-profiles/group-iv/principal-scientist/rajesh-kumar/?fbclid=IwY2xjawH-0zpleHRuA2FlbQIxMAABHSIQ1TmbDGKo4ixUuPrOE3cfQregqoGmMjlLPBsgUZSt35A7xF2aAZ8GgA_aem_kEDygONMdlGoQcpQW8p85A

Linkdin Profile: https://www.linkedin.com/in/rajesh-kumar-sharma-b845496a/

6. Academic Qualification:

Degree	University / Institution	Division / Equivalent	Year of Passing	Specialization
B.Tech	Madan Mohan Malaviya University of Technology, Gorakhpur, Uttar Pradesh, India	1st (Hons.)	2012	Civil Engineering
M.Tech	Academy of Scientific and Innovative Research/ CSIR-CBRI Roorkee, Uttarakhand, India	1st (Distinction)	2014	Building Engineering & Disaster Mitigation
Ph. D	Indian Institute of Technology (IIT) Delhi, New Delhi, India	CGPA 9/10	Thesis submitted	Structural Engineering

7. Experience Details (In reverse chronological order): Since Sept' 2012

Institute / Organization	Type (Academic Instt./ Industry / Self-employed)	Post Held	From (date) To (date)	Nature of Job
CSIR-Central Building Research Institute, Roorkee, Uttarakhand, India	National Research Lab	Trainee Scientist	05-09-2012 To 07-01-2016	The research work in the project, 'Cost-effective Building Products using Low grade limestone Waste' has been carried out.
CSIR-Central Building Research Institute, Roorkee, Uttarakhand, India	National Research Lab/ Academic Institute	Scientist	08-01-2016 To 07-01-2020	The R&D projects related to Stone wastes utilization, Lightweight concretes, Composite

				cement etc.
Academy of Scientific and Innovative Research/ CSIR- CBRI Roorkee, Uttarakhand, India	Academic Institute	Assistant Professor	20-07-2021 To Till date	Mentorship and Teaching to PG students
CSIR-Central Building Research Institute, Roorkee, Uttarakhand, India	National Research Lab	Senior Scientist	08-01-2020 To Till date	The R&D projects related to Statistical modelling, ANOVA, Multi-attribute optimization technique, Low carbon/Limestone Calcined Clay Cement, Low Energy/CSAB cement etc.
CSIR-Central Building Research Institute, Roorkee, Uttarakhand, India	National Research Lab	Head- Organic Building Materials Group	01-01-2022 To 31-03-2023	
CSIR-Central Building Research Institute, Roorkee, Uttarakhand, India	National Research Lab	Associate Head: Advanced Concrete, Steel & Composites (ACSC) Group	01-08-2024 To Till date	
CSIR-Central Building Research Institute, Roorkee, Uttarakhand, India	National Research Lab	Principal Scientist: Advanced Concrete, Steel & Composites (ACSC) Group	08-01-2024 To Till date	

7 (a). Papers/Book Chapters Published in International Journals, & *Presented in International Conferences: (*Corresponding Author)*

International Peer–reviewed (SCI/SCIE): 27 Nos.

1. Rajesh Kumar*, Shashank Bishnoi & N Gopalakrishnan (2026). Stabilizing Reactive Cement Phase through Targeted Doping: The Case of β-Belite and Boric Acid. Journal of the Australian Ceramic Society (Springer Nature). https://doi.org/10.1007/s41779-025-01344-3. **(Impact Factor: 2.1)**
2. Nitish Kumar, Akshay Sharma, Arpit Goyal*, A.B. Danie Roy, Rajesh Kumar (2026). Utilization of waste-derived carbon black nanoparticles for enhancing thermo-mechanical properties of cement mortar. Magazine of Concrete Research. **(Impact Factor: 1.6)**
3. Dipendra Das, Rajesh Kumar* and Srinivasarao Naik B (2025). Effect of curing temperature on mechanical, durability, and microstructural properties of blended pure phases of cement with fly ash and limestone. Journal of the Indian Chemical Society, 102(11), 102165. https://doi.org/10.1016/j.jics.2025.102165. **(Impact Factor: 3.4)**
4. Mukherjee, S., **Kumar, R.*,** Behera, M., Goyal, A., & Rahman, M. R. (2025). Rheology, mechanical properties and microstructure characterization of limestone calcined clay cement (LC3) incorporated sustainable lightweight self-compacting concrete. Developments in the Built Environment, 100601. https://doi.org/10.1016/j.dibe.2025.100601. **(Impact Factor: 6.2/Q1)**
5. K Mishra, S Singh, R Agarwal, NB Balam, **R Kumar,** S Naik B* (2025). Silica-Based Microencapsulation of Phase Change Materials for Efficient Thermal Energy Storage: A Comprehensive Review. Energy Storage,Wiley, Volume 7, Issue 4, e70189. https://doi.org/10.1002/est2.70189 **(Impact Factor: 3.6/Q2)**
6. Piyush Verma, **Rajesh Kumar*,** Snigdhajit Mukherjee, Mahesh Sharma (2024). Sustainable Self-Compacting Concrete with Marble Slurry and Fly Ash: Statistical Modeling, Microstructural Investigations, and Rheological Characterization. Journal of Building Engineering. https://doi.org/10.1016/j.jobe.2024.109785 **(Impact Factor: 6.4/Q1)**
7. S Singh, KR Shekaran, R Agarwal, VG Kalpana, H Athar, **R Kumar,** Naik Banavath, S.* (2024). Enhancing the strength and durability of mixed biochar-blended mortars after Accelerated Carbonation Curing (ACC). Journal of Building Engineering. **(Impact Factor: 6.4/Q1)**

8. Sharma, C., Rajput, A., **Kumar, R.*,** Srinivasaraonaik, B., Paswan, R., & Goyal, A. (2024). Thermo- mechanical and microstructural characterization of LECA and low carbon cement based lightweight mortar using box Behnken design, and embodied energy analysis. Construction and Building Materials, 411, 134530. https://doi.org/10.1016/j.conbuildmat.2023.134530. **(Impact Factor: 7.4/Q1)**
9. Thakur, A., Agarwal, R., **Kumar, R.*,** Singh, S., Athar, H., Naik Banavath, S.*, Sharma, M., & Rai, D. (2024). Enhancement of concrete performance and sustainability through partial cement replacement with Biochar: An experimental study. Iranian Journal of Science and Technology, Transactions of Civil Engineering. https://doi.org/10.1007/s40996-024-01661-w. **(Impact Factor: 1.7/Q2/2023).**
10. BK Singh, **Rajesh Kumar*,** S Sengupta (2024). Industrial production of fly ash and sand-based geopolymer bricks using different molarity of NaOH solution and assessment of their mechanical and durability properties. Iranian Journal of Science and Technology, Transactions of Civil Engineering, Springer Nature. ISSN: 2228-6160, Volume 48, pages 61–79. https://doi.org/10.1007/s40996-023-01154-2 **(Impact Factor: 1.7/2022/Q2).**
11. Deepak Singh, **Rajesh Kumar*,** NS Nighot, Anurag Rajput, Abhilasha Prajapati, Bibhakar Kumar Singh, MS Kirgiz, B. Srinivasaraonaik, Raghav Kumar Mishra, Shahnavaz Khan, Rajni Lakhani (2023). A comprehensive review on valorisation of octal by-product as supplementary admixtures in the production of fired and unfired bricks. Construction and Building Materials, Elsevier, 408, 133641. https://doi.org/10.1016/j.conbuildmat.2023.133641 **(Impact Factor: 7.4/2022/Q1)**
12. Ishan Bhandari and **Rajesh Kumar* (2023).** Effect of Silica Fume and PCE-HPMC on LC3 mortar: Microstructure, Statistical optimization and Life Cycle Assessment. Construction and Building Materials, Elsevier, Volume 403, 133073. *https://doi.org/10.1016/j.conbuildmat.2023.133073* **(Impact Factor: 7.4/2022)**
13. Ishan Bhandari, **Rajesh Kumar***, A Sofi and NS Nighot (2023). A Systematic Study on Sustainable Low Carbon Cement – Superplasticizer Interaction: Fresh, Mechanical, Microstructural and Durability Characteristics. Heliyon,Elsevier, *https://doi.org/10.1016/j.heliyon.2023.e19176* **(Impact Factor: 4.0/2022)**
14. Agarwal, R., Pawar, N., Supriya, Rawat, P., Rai, D., **Kumar, R.,** & Naik B, S.* (2023). Thermo-mechanical behavior of cementitious material with partial replacement of Class-II biochar with accelerated carbonation curing (ACC). Industrial Crops and Products, Elsevier, 204, 117335. *https://doi.org/10.1016/j.indcrop.2023.117335* **(Impact Factor: 5.9/2022).**
15. Anurag, **Rajesh Kumar***, & S. Goyal (2023). Recycling of calcined low-grade limestone slurry in producing low carbon cementitious binder towards sustainable environment: ANOVA, Statistical modeling & Microstructural performance. *Environmental Development*, Elsevier, *https://doi.org/10.1016/j.envdev.2023.100910* **(Impact Factor: 5.4/2022)**
16. N.S. Nighot, **Rajesh Kumar*** (2023). A comprehensive study on the synthesis and characterization of eco-cementitious binders using different kind of industrial wastes for sustainable development. *Developments in the Built Environment*, Elsevier, 100135. *https://doi.org/10.1016/j.dibe.2023.100135* **(Impact Factor: 8.2/2022)**
17. Abhilasha, **Rajesh Kumar*,** Rajni Lakhani, RK Mishra, S Khan (2023). Utilization of Solid Waste in the Production of Autoclaved Aerated Concrete and their Effects on its Physio-mechanical and Microstructural Properties: Alternative sources, characterization, and performance insights, International Journal of Concrete Structures and Materials, **17**, Article number: 6, *Springer Nature. https://doi.org/10.1186/s40069-022-00569-x* ***(ImpactFactor: 3.4/2022)***
18. **Rajesh Kumar*** & Abhishek Srivastava (2022). Influence of lightweight aggregates and Supplementary Cementitious Materials on the properties of Lightweight Aggregate Concrete. *Iranian Journal of Science and Technology, Transactions of Civil Engineering, Springer Nature. ISSN: 2228-6160*. *https://doi.org/10.1007/s40996-022-00935-5* **(Impact Factor: 1.7/2022).**
19. P. Tomar, **R. Kumar*,** R. Lakhani, A. Srivastava & V. K. Chibber (2022). Improvement in

hygroscopic property of Macro-defect free cement modified with Hypromellose/ potassium methyl siliconate copolymer and pulverized fly ash. Journal of Thermal Analysis and Calorimetry, *Springer Nature. e-ISSN: 1588-2926.* *https://doi.org/10.1007/s10973-022-11447-9* **(Impact Factor: 4.4/2022).**

20. **Rajesh Kumar*,** P. Tomar, A. Srivastava, R. Lakhani & V. K. Chibber (2022). Improvement of Mechanical and Microstructure Properties of Modified Fly Ash-Blended Low Carbon Cement with Hydroxy Propyl Methyl Cellulose Polymer. *Iranian Journal of Science and Technology, Transactions of Civil Engineering, Springer Nature. ISSN: 2228- 6160*. *https://doi.org/10.1007/s40996-022-00855-4* **(Impact Factor: 1.7/2022).**
21. **Kumar, R.*,** Srivastava, A., & Lakhani, R. (2021). Industrial wastes-cum-Strength enhancing additives incorporated lightweight aggregate concrete (LWAC) for energy efficient building: A comprehensive review. *Sustainability*, *14*(1), 331. *https://doi.org/10.3390/su14010331* ***(Impact Factor: 3.889/2021).***
22. **Rajesh Kumar*** (2021). Effects of high volume dolomite sludge on the properties of eco-efficient lightweight concrete: Microstructure, statistical modeling, multi-attributeoptimization through derringer's desirability function, and life cycle assessment. *Journal of Cleaner Production*, Elsevier, *307*, 127107. *https://doi.org/10.1016/j.jclepro.2021.127107* **(Impact Factor: 11.072/2021).**
23. Anurag, **Rajesh Kumar***, Goyal, S., & Srivastava, A. (2021). A comprehensive study on the influence of supplementary cementitious materials on physico-mechanical, microstructural and durability properties of low carbon cement composites. *Powder Technology*, Elsevier, *394*, 645-668. *https://doi.org/10.1016/j.powtec.2021.08.081* **(Impact Factor: 5.64/2021/Q1).**
24. **Rajesh Kumar* (2020).** Modified mix design and statistical modelling of lightweight concrete with high volume micro fines waste additive via the Box-Behnken design approach. *Cement and Concrete Composites*, Elsevier, *113*,103706. *https://doi.org/10.1016/j.cemconcomp.2020.103706*. **(Impact Factor:7.856/2020/Q1) (Best Research Paper Award; by Jury)**
25. Hou, P.*, Guo, Z., Li, Q., Zhang, X., Liu, J., Cheng, X., **Kumar, R.,** Srinivasaraonaik, B., & Singh, L. (2019). Comparison study on the sulfate attack resistivity of cement-based materials modified with nanoSiO2 and normal SCMs: pore structure and phase composition. Construction & Building Materials, Elsevier, 228, 116764. *https://doi.org/10.1016/j.conbuildmat.2019.116764* **(Impact Factor:4.419/2019/Q1).**
26. **Kumar, R.**, Lakhani, R.*, & Tomar, P. (2018). A simple novel mix design method and properties assessment of foamed concretes with limestone slurry waste. *Journal of Cleaner Production*, Elsevier, *171*, 1650–1663. *https://doi.org/10.1016/j.jclepro.2017.10.073* **(Impact Factor: 6.395/2018/Q1).**
27. Tomar, P., Lakhani, R.*, Chhibber, V. K., & **Kumar, R.** (2018). Macro-defect free cements: a future oriented polymer composite materials for construction industries. Composite Interfaces. Taylor and Francis Ltd., 25, 607-627. *https://doi.org/10.1080/09276440.2018.1439637* **(Impact Factor: 2.025/2018/Q2).**

International Peer–reviewed (ESCI/Scopus/WoS Indexed): 30 Nos.

1. **Rajesh Kumar*,** Shashank Bishnoi, N Gopalakrishnan (2025). Effects of Raw Materials, Sintering Conditions, and Stabilizers on High Volume M3-Alite Synthesis. Journal of Building Material Science. 7(2), 47–57. https://doi.org/10.30564/jbms.v7i2.9181
2. Aditya Milmile, **Rajesh Kumar*** and Banti A. Gedam (2025). Investigation of mechanical properties of high-performance steel and polypropylene fiber reinforced concrete. Journal of Building Material Science, 16-28. https://doi.org/10.30564/jbms.v7i4.9137
3. Singh, J., Nighot, N. S., Kumar, R.* (2026). Effect of Calcined Red Mud on Pozzolanic Reactivity and Physico-mechanical Properties of Composite Cement Mortar. Proceedings of the International Conference on Condition Assessment, Rehabilitation & Retrofitting of Structures (CARRS).

4. Yadav, A., **Kumar, R.*,** Mehta, C., Nighot, N. S., & B., S. N. (2026). Studies on calcium sulfoaluminate-belite (CSAB) cement using industrial wastes. *Journal of Building Material Science*, 1-11. https://doi.org/10.30564/jbms.v8i1.9136
5. Yadav, A., **Kumar, R.*,** Yadav, A., Nighot, N. S., & Prajapati, A. (2025). Effect of crystalline admixture on the mechanical and durability properties of M40 grade of concrete. *Journal of Building Material Science*, *7*(3), 49-61. *https://doi.org/10.30564/jbms.v7i3.9134*
6. Sanjay Nighot, N., **Kumar, R.*,** & Naik B, S. (2024). Effects of Bogues compounds and particle size distribution on the physico-mechanical and Microstructural properties of Portland cement system. E3S Web of Conferences, 596, 01004. https://doi.org/10.1051/e3sconf/202459601004
7. Kumar, P., **Kumar, R.*,** Surabhi, Rahman, M. R., & Khan, S. (2024). Development of sustainable precast concrete sandwich wall panels using artificial aggregates and mineral admixture. E3S Web of Conferences, 596, 01006. https://doi.org/10.1051/e3sconf/202459601006
8. Yadav, A., **Kumar, R.*,** Khan, S., Pippal, A., & Khan, J. (2024). Size effect in lime-stone calcined clay Cement (LC3) incorporated paver blocks: Mechanical and durability investigation. E3S Web of Conferences, 596, 01002. https://doi.org/10.1051/e3sconf/202459601002 (Best Paper Award by Springer-ICCMES 2024 Jury)
9. Verma, S., Yadav, A., **Kumar, R.*,** Kulkarni, K. S., & Khan, S. (2024). Studies on fly- ash and slag incorporated sustainable AAC composites. E3S Web of Conferences, 596, 01016. https://doi.org/10.1051/e3sconf/202459601016
10. Kumari, K., **Kumar, R.*,** Kulkarni, K. S., Pippal, A., & Khan, J. (2024). Studies on thermo-mechanical and microstructural properties of non-autoclaved aerated concrete. E3S Web of Conferences, 596, 01001. https://doi.org/10.1051/e3sconf/202459601001
11. Sini Kushwah, Shweta Singh, Rachit Agarwal, Nikhil Sanjay Nighot, **Rajesh Kumar,** Humaira Athar & Srinivasarao Naik B*. Mixture of biochar as a green additive in cement-based materials for carbon dioxide sequestration. J Mater. Sci: Mater Eng. 19, 27 (2024). https://doi.org/10.1186/s40712-024-00170-y
12. Snigdhajit Mukherjee & **Rajesh Kumar*** (2024). Statistical Optimization of Fresh and Mechanical Properties for Limestone Calcined Clay Cement (LC3) Incorporated Lightweight Self Compacting Concrete Using Central Composite Design. Book: Proceedings of the 3rd International Conference on Advances in Concrete, Structural, and Geotechnical Engineering—Volume 1. *DOI : 10.1007/978-981-96-0746-4*
13. Verma, P., **Kumar, R.*,** Mukherjee, S., & Sharma, M. (2024). Rheological and mechanical properties of self-compacting concrete with partial replacement of marble slurry and fly ash. *Lecture Notes in Civil Engineering*, 35-46. Springer. *https://doi.org/10.1007/978-981-97-4844-0_4*
14. Semwal, S., Prajapati, A., **Kumar, R.*,** Kumar, S., Khan, S., Siva Chidambaram, R., Joshi, G., & Lakhani, R. (2024). Thermo-mechanical behaviour of lightweight precast sandwich panels incorporating solid waste—An experimental investigation. *Lecture Notes in Civil Engineering*, 47-60. Springer. *https://doi.org/10.1007/978-981-97-4844-0_5*
15. Kirgiz, M. S., De Sousa Galdino, A. G., Campilho, R. D., **Kumar, R.**, Kolovos, K. G., & Kumar, V. M. (2024). Valorization of Nanocarbon dot–based green binder systems in terms of earthquake engineering, reinforced concrete building, applied mechanics, transportation engineering, and their applications. *Handbook of Innovative Adhesive Technology*, 39-49. *https://doi.org/10.1201/9781003598923-3*
16. **Rajesh Kumar*** (2023). "Influence on Hydration and Microstructural Properties of Low Carbon Cementitious Binder Modified with Water Soluble Polymer and Fly Ash", Recent Advances in Materials, Mechanics and Structures. Lecture Notes in Civil Engineering, vol 269. Springer, Singapore. *https://doi.org/10.1007/978-981-19-3371-4_1*
17. **Rajesh Kumar*** (2023). Recent progress in newer cementitious binders as an alternative to Portland cement: Need for the 21st century. Recent Advances in Structural Engineering & Construction Management, Lecture Notes in Civil Engineering, vol 277.

Springer. https://doi.org/10.1007/978-981-19-4040-8_63

18. **Rajesh Kumar*** & Bibhakar Kumar Singh (2023)**.** Cement stabilized mud blocks admixed with bagasse fibre, wheat straw and crumb rubber: Physico-mechanical and thermal investigation. Recent Advances in Structural Engineering & Construction Management, Lecture Notes in Civil Engineering, vol 277. Springer. *https://doi.org/10.1007/978-981-19-4040-8_49* **(Best Paper Award by Springer-ICSMC Jury)**
19. **Rajesh Kumar*** & Rajni Lakhani (2023)**.** Studies on polymer-modified Lime-surkhi repair mortar for heritage buildings: Physico-mechanical and Microstructural characterization. Recent Advances in Structural Engineering & Construction Management, Lecture Notes in Civil Engineering, vol 277. Springer. *https://doi.org/10.1007/978-981-19-4040-8_60*
20. Chandra Shekhar Sharma & **Rajesh Kumar*** (2023). "Influence of dry lime sludge on the physico-mechanical & microstructural properties of low carbon cementitious composites exposed at elevated temperature", Recent Advances in Materials, Mechanics and Structures. Lecture Notes in Civil Engineering, vol 269. Springer, Singapore. *https://doi.org/10.1007/978-981-19-3371-4_30*
21. Anurag and **Rajesh Kumar*** (2023). "Optimization of clinker factor for low carbon penta-blended cement mortar via Box-Behnken Design of Response Surface Methodology", Recent Advances in Structural Engineering & Construction Management, Lecture Notes in Civil Engineering, vol 277. Springer. *https://doi.org/10.1007/978-981-19-4040-8_47*
22. Bibhakar Kumar Singh & **Rajesh Kumar*** (2023). "Novel lightweight Portland Pozzolana Cement (PPC) stabilized mud composites using crumb rubber & agricultural waste: Physico-mechanical and thermal performance", Materials Today Proceedings, Elsevier. *https://doi.org/10.1016/j.matpr.2023.03.132*
23. Shagun Solanki, **Rajesh Kumar*,** Ankit Prakash Yadav and Sandeep Gupta (2023). "Mathematical Modelling and ANOVA analysis to develop sustainable ceramic tiles using high volume marble slurry", Materials Today Proceedings, Elsevier. *https://doi.org/10.1016/j.matpr.2022.12.229*
24. Ishan Bhandari and **Rajesh Kumar*** (2022). "Limestone-Calcined Clay-Silica FumeBlended Cement: Statistical modelling and multi-attribute optimization through derringer's desirability function", Materials Today Proceedings, Elsevier. *https://doi.org/10.1016/j.matpr.2022.10.130*
25. Anurag, **Rajesh Kumar***, Shweta Goyal, Sumedha (2022). "Supplementary cementitious materials in low carbon cementitious binders and concrete composites: Fresh and Hardened Properties", *Indian Journal of Environmental Protection* (ISSN 0253– 7141). *https://www.e-ijep.co.in/ijep-4213-1564-1571-2022/*
26. **Kumar R.*,** Lakhani R., Kumar A. (2022). Physico-Mechanical and Thermal Properties of Lightweight Structural Concrete with Light Expanded Clay Aggregate for Energy-Efficient Buildings. Advances in Construction Materials and Sustainable Environment. Lecture Notes in Civil Engineering, vol 196. Springer, Singapore. *https://doi.org/10.1007/978-981-16-6557-8_14*
27. Srivastava A., **Kumar R.*** & Lakhani R. (2021). "Low energy Eco-cementitious binders as an alternative to Ordinary Portland Cement" in 'Smart Materials, Technologies, and Devices: Applications of Industry 4.0' published by Springer Nature Switzerland, C. M. Hussain, P. Di Sia (eds.). *https://doi.org/10.1007/978-3-030-58675-1_143-1*.
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International Conference Paper: 44 Nos.

1. **Rajesh Kumar* (2025).** Innovative Portland Calcined Limestone Cement with Low Grade Stone Slurry: Enhancing Sustainability And Performance In Lightweight Concrete. The 20th UTTARAKHAND STATE SCIENCE AND TECHNOLOGY CONFERENCE – 2025, Dehradun, India, 28-30th Nov 2025.
2. **Nikhil Sanjay Nighot, Rajesh Kumar*, Srinivasarao Naik B (2025).** Effect of Co-calcination Temperature, Dwelling Time and Mix Proportion on Pozzolanic Reactivity of Co-calcined Red Mud and Kaolin Clay. The 20th UTTARAKHAND STATE SCIENCE AND TECHNOLOGY CONFERENCE – 2025, Dehradun, India, 28-30th Nov 2025.
3. **Rajesh Kumar* (2025).** Eco-Cement Binders from Waste-Derived Raw Materials: A Route to Green Construction. The 4th International Symposium on One Health, One World 20th – 22nd November 2025 CSIR-CBRI, Roorkee, India.
4. **Rajesh Kumar*** (2024). "Synthesis of Eco-Cement Clinker using Low Graded Industrial Waste". 'International Conference on Advances in Chemical and Applied Sciences for Sustainable Development", JECRC University, Jaipur (Rajasthan), India, 29-30 March' 2024. **(Best Research Paper Award by American Chemical Society (ACS) along with International Conference on "Advances in Chemical and Applied Sciences for Sustainable Development"- 2024).**
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12. A. Kumar, A. Pippal, R. Agarwal, **R. Kumar,** B. Srinivasaraonaik*, H. Athar, S. Kushwah (2023). Thermo-Physical study of Biochar Mixture into the Cement-Based Material for Thermal Comfort. Journal of Building Design and Environment, 2023;2(2):21478. https://doi.org/10.37155/2811-0730-0201-13
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35. **Rajesh Kumar*** (2021). "Newer low carbon cementitious binders as an alternative to Ordinary Portland cement", International Conference on Structures, Materials and Construction (ICSMC 2021), Jaypee University of Information Technology, Waknaghat, HP, India, 12th – 13th Nov 2021. (Paper ID – 274).
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International/ National Posters: 04 Nos.

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2. Ishan Bhandari, **Rajesh Kumar*,** A Sofi, and Abhishek Srivastava (2022). "Statistical optimization of HPMC-PCE based Limestone- Calcined Clay- Silica fume blended Cement: Fresh and Hardened Properties, and Microstructural Investigation", International Conference on Calcined Clay for Sustainable Concrete, SwissTech Convention Center, EPFL, Lausanne, Switzerland, 5th– 7th July 2022. (Proceedings will be published online). https://ccsc.epfl.ch/wp-content/uploads/2022/06/CCSC-2022_conference-programme_tentative.pdf
3. **Rajesh Kumar*,** Abhishek Srivastava, Priyanka Tomar and Rajni Lakhani (2021). "Effect of Hydroxypropyl methylcellulose polymer modification on properties of low carbon cementitious composites", Abstract Proceedings of 3rd International Congress on Materials & Structural Stability, Rabat, Morocco, p2-309, pp. 134-135, 24-26 November 2021. https://www.congresscmss21.asmatec.org/
4. **Rajesh Kumar*,** Rajni Lakhani, Priyanka Tomar and Shahnawaz Khan (2015). "Potential Use of Kota Stone Waste in the Production of Value Added Products", Proceeding of 26th Annual General Meeting of Materials Research Society of India 2015, Jaipur, Feb. 9-11, 2015 (Accepted paper ID: MEE −08).

National Conference Paper: 04 Nos.

1. **Rajesh Kumar** and Rajni Lakhani (2019). "Cement Concrete Interlocking Paver Blocks using Kotastone and Marble slurry", Advances in Building-Road Materials and Construction Engineering (ABRMCE-2019), MNIT Jaipur, March 25th & 26th, 2019.
2. Rajni Lakhani and **Rajesh Kumar** (2018). "Strategies for the Restoration of Heritage Buildings: Material Issues", Technical Training Program, BHAGVAN- A SEARCH, CSIR-CBRI, Roorkee, Oct. 3-4, 2018.
3. Priyanka Tomar, Rajni Lakhani and **Rajesh Kumar** (2018). ''Micro-structure andThermal properties of polymer modified fly ash blended cement pastes for Repair applications", A National Seminar on Emerging Building Materials and Construction Technologies"**,** India Habitat Centre, Delhi, Feb. 22-23, 2018.
4. Rajni Lakhani and **Rajesh Kumar** (2017). "Sustainable Use of Kota Stone Waste", Gainful Utilization of Marble Slurry and Other Stone Wastes, MNIT Jaipur, India, July 13, 2017,pp.191-192.

7 (b). Technology Transfer: 07 Nos.

1. "Building Products using Kota Stone Waste" to Rajasthan State Pollution Control Board, Jaipur, Rajasthan, India; on 08.08.2017; Technology Cost: 20.0 L) (https://techindiacsir.anusandhan.net/online/Control.do) (Best Technology Award – 2017 by 'Director, CSIR- CBRI along with Jury')

2. "IPN Coating for the protection of Reinforced Concrete Structures" to M/s. Kansai

Nerolac Paints Pvt. Ltd., Mumbai, India; on 16.03.2023; (with Dr. Rajni Lakhani)

3. “Flooring- Wall Tiles, Bricks, & Paver Blocks Using Marble Waste” to M/s. Marble Plaza, New Delhi; on 24.11. 2023

4. “Low-Carbon Cement Concrete Composites using Sustainable Chemical Admixtures” to M/s. Litagg Industries Pvt Ltd, Gujarat, India; Technology Cost: 2.95 L

5. “Innovative Cool Roof” to M/s. Litagg Industries Pvt Ltd, Gujarat, India; on 24.01.2024; (with Dr. Kishor Kulkarni)

6. “Specific Strength Attributed Self-Compacting Load Bearing Lightweight Roof/Floor Screed Using Sintered Lightweight Aggregates” to M/s. Pidilite Industries Limited, Mumbai, India in August’ 2025

7. “Self-compacting Aircrete Composite (SAC) Roof/Floor Screed for Thermal Insulation (SAC Screed)” to M/s. Pidilite Industries Limited, Mumbai, India in August’ 2025

Low-Carbon Cement Concrete Composites using Sustainable Chemical Admixtures

Flooring- Wall Tiles, Bricks, & Paver Blocks Using Marble Waste

Innovative Cool Roof

Recently Transferred Technologies

8. Patents:

- **Rajesh Kumar,** Amit Yadav and Nikhil S. Nighot (2025). "LOW-ENERGY CALCIUM SULFOALUMINATE-BELITE CEMENT: A SUSTAINABLE APPROACH USING INDUSTRIAL BY-PRODUCTS" (Indian Patent application 0206NF2025).
- Lakhani, R. and **Rajesh Kumar** (2022). "An improved process of making cement concrete interlocking paver blocks using Kotastone slurry" (Patent application No. 202211060661). Date of Filing: 21.10.2022
- **Rajesh Kumar,** Nikhil S. Nighot and Amit Yadav (2025). "Eco- Cementitious OPC clinker using Low grade limestone slurry waste, Iron dust and Red mud, and Processes Thereof" (In process, IDF filed in 2025).

9. Contribution in the area of Sustainable Development:

Brief about contribution	Place where used	Year of implementation / use	Benefit achieved (if any)
The Field study examined the potential use of different types of **agriculture and industrial wastes, i.e., wheat straw, crumb rubber, and bagasse fiber** in the development of the engineered mud phuska tiles. For demo testing, twomodel houses ($L \times B \times H$ =430 × 510 × 330 mm) were constructed (one conventional house and other mud phuska roof tile house). **One M.Tech Student (2016) has completed his thesis in the same research area.**	Roorkee, Haridwar, India	2017	The mix proportion with ratio of crumb rubber and wheat straw in soil and cement mix up to 7.5% has achieved the desired value of compressive strength (2.65 MPa), flexural strength(1.85 MPa), and k value(0.25 W/m K). The waste incorporated mud phuska roof tilehouse was cooler as compare to conventional model house and have average temperature difference was up to 5–6 °C.
A Technology entitled, "**Building Products using Kota Stone Waste**" is being successfully implemented in Kota, Rajasthan on 16.06.2018. It is India's first start-up plant for Kotastone waste management; recognized by Central and State government (under Start-up Policy-2017, Waste to Wealth and Swachh Bharat Abhiyan).	Kota, Rajasthan, India	2018	As per the officials of 'Pashan welfare foundation, Kota'; since the inception of plant in Kota; total sales of interlocking paverblocks, tiles and bricks were7,24,685 in numbers (in 9.5 months). Till now, 'Pashan Welfare Foundation, Kota' has earned approx. 30 to 35 % profit on the developed products.

In Indo-US project entitled, **"Improving Building Energy Efficiency (Task: Structural Interlocking Masonry Blocks using Industrial / Agro-Industrial Wastes)";** lightweight roofing tiles and structural interlocking masonry blocks were being made using LECA, OPC and latent/ active hydraulic waste. The mechanical and durability properties of structural lightweight concrete containing Class F Fly ash and Silica fume was investigated. The substitution of Portland cement with high volume of Class F Fly ash further reduced the density of lightweight concrete by increasing the strength.	Roorkee, Haridwar, India	2020	The compressive and flexural strength of the developed LWAC blocks was in the range of 16.7–23.9 MPa and 2.8–3.4 MPa, respectively. Thermal conductivity of the lightweight aggregate concrete specimens were found in-between 0.23 and 0.30 W/m K. From the analysis, it was inferred that the LECA concrete shows good strength at lower density, lower thermal conductivity, and lower drying shrinkage that makes it a suitable material for building constructions.

In the project entitled, **"Development of low energy- low carbon ECO cementitious binders via synergistic use of low graded industrial wastesfor sustainable development",** low graded industrial wastes are being used as the replacement of the conventional/traditional raw materials used in OPC/ Calcium sulfoaluminate–belite (CSA-B) cement production. **Three M.Tech Students (2021-23) have completed their thesis in the same research area.**	Roorkee, Haridwar, India	2023	In comparison with Portland cement, energy savings can be as high as 25 %, with limestone reductions of 60 % together with reductions in CO_2 emissions of around 25-30%. Therefore, the two major advantages to use CSAB cement will be: *i. Reduction of carbon footprints by 30% (minimum)* *ii. Cost minimization about 20-25% relative to OPC*

10. Technical Awards: 11 Nos.

Name of the Award	Details	Awarded by	Year	Type
Diamond Jubilee Director's Technology Award - 2017	Best Technology Award for ***"Building Products using Kota Stone Waste"***	Director, CSIR-CBRI along with Jury	2018	National
Best Research Paper Award-2021	Best Research Paper on ***"Cement stabilized mud blocks admixed with bagasse fibre, wheat straw and crumb rubber: Physico-mechanical and thermal investigation"***	Springer along with International Conference on Structures, Material and Construction-2021	2021	International
Springer-IconSWM Excellence Award for Best Research Paper -2021	Best Research Paper on ***"Experimental investigation on the effect of highvolume low-grade stone slurry on mechanical,seismic resistance & thermal properties of Aircrete"***	Springer along with 11th IconSWM-CE & IPLA Global Forum 2021	2021	International

Diamond Jubilee Director's Award for Best Research Paper-2021	Best Research Publication* ***"Modified mix design and statistical modelling of lightweight concrete with high volume micro fines waste additive via the Box-Behnken design approach"*** ***https://doi.org/10.1016/j.cemconcomp.2020.103706***	Director, CSIR-CBRI along with Jury	2022	National
Young Engineers Award: 2022-23	Contributions in Engineering Research (Civil Engineering). Website- https://www.ieindia.org/webui/IEI-Activities.aspx#prizes-awards	The Institution of Engineers (India)	2022	National
Best Research Paper Award: 2022	Best Research Paper on "Physico - mechanical and thermal characteristics of novel lightweight mud composites for wall -roof treatment" (Authors: Rajesh Kumar* & Bibhakar Singh)	Elsevier along with International Conference on Construction Materials and Structures- 2022	2022	International
Best Research Paper Award - 2023	Best Research Publication: https://doi.org/10.1016/j.envdev.2023.100910	Director, CSIR-CBRI along with Jury	2023	National
Best Research Paper Award	Best Research Paper on "Synthesis of Eco-Cement Clinker using Low Graded Industrial Waste" (Authors: Rajesh Kumar*)	American Chemical Society (ACS) along with International Conference on "Advances in Chemical and Applied Sciences for Sustainable Development"- 2024	2024	International
Outstanding Research Paper in Civil Engineering	Best Research Paper: https://doi.org/10.1016/j.envdev.2023.100910	Special Jury Award, part of 3rd- CE&CR Annual Awards (https://www.cecr.in/cecr-awards-2024)	2024	National
Best Research Paper award	An International Conference on Civil, Materials and Environment for Sustainability- 2024	Best Research Paper on "Size Effect in Lime-stone Calcined Clay Cement (LC3) incorporated Paver blocks: Mechanical and Durability Investigation" (Authors: Amit Yadav, **Rajesh Kumar*,** Shahnavaz Khan, Ashish Pippal, Jeeshan Khan)	2024	National
Achievement Award for Scientist- 2024	Contributions in Engineering Research (Civil Engineering). https://www.cidc.in/vishwakarma2nd-1.html	Construction Industry Development Council (CIDC) established by Planning Commission (Now NITI Aayog), Govt. of India	2024	National

By Students: **03 Nos.**

S. No.	Student Name	Course/Branch	Title	Completion year	Grades in Project work
1	Mr. Anurag	M.Tech-Structural Engineering	Optimization of low-graded limestone slurry to develop low clinker cementitious binders using Response surface methodology	2021	10/10 (Recipient of ***" Best Master Thesis Award: 2023" by Indian Association of Structural Engineers***)
2	Mr. Ishan Bhandari	M.Tech-Structural Engineering	Statistical Optimization of PCE-HPMC Based Limestone – Calcined Clay – Silica Fume Cement: Fresh and Hardened Properties	2022	10/10 *(Recipient of "**Indian Concrete Institute (ICI)– Ultratech Outstanding Master Thesis Award: 2022"**)*
3	Mr. Dipendra Kumar Das	M.Tech-Structural Engineering	Influence of Fly Ash and Limestone Slurry on Physico-mechanical and Microstructural Properties of Pure Blended OPC Phases at Different Curing Temperatures	2023	10/10 *(Recipient of "**Indian Concrete Institute (ICI)– Ultratech Outstanding Master Thesis Award: 2023"**)*

11. Membership of Professional Societies:

Name of the Society	Address	Membership Category & Number
The International Union of Laboratories and Experts in Construction Materials, Systems and Structures (RILEM)	Champs sur Marne 77447 Marne la Vallée Cedex 2	Young Member & 41009
American Concrete Institute (ACI)	ACI Resource Center – Elk Grove Village, IL 60007 USA	Individual & 02112222
Indian Concrete Institute (ICI)	Indian Concrete Institute, No.201, First Floor, Jawaharlal Nehru Road, Koyambedu, Chennai - 600107	Life Member (LM) & LM-13373
The Institution of Engineers (India)	8 Gokhale Road, Kolkata, India	Life- Member (MIE) & M-1748240
American Society of Civil Engineers (USA)	1801 Alexander Bell Drive, Reston, VA 20191	Member & 012293040
ASTM International	West Conshohocken, PA 19428-2959, USA	Member & 2368739
The Indian Science Congress Association (ISCA)	Indian Science Congress Association 14, Dr. Biresh Guha Street, Kolkata-700 017	Life- Member & L-42632

- Reviewer for Journals viz.- *Journal of Materials in Civil Engineering (ASCE), Computers & Concrete, Waste Management, Journal of Cleaner Production, Advances in Cement Research, Construction & Building Materials, Resources, Conservation & Recycling etc.*

12. Projects & responsibilities:

- **External Ministry Projects:**

Title	Duration	Role	Funding Agency
Development of low energy- low carbon ECO cementitious binders via synergistic use of low graded industrial wastes for sustainable development	2020-24	PI	MoEF&CC
Development of performance improved Precast concrete sandwich/composite materials using solid wastes	2020-24	PI	MoEF&CC
Development of Structural Interlocking Masonry Blocks using Industrial / Agro Industrial Wastes	2017-21	Co-PI of Task 4.4	Indo-US

- **CSIR Projects:**

Title	Duration	Role	Category
CSIR MISSION MODE PROJECT "SMART VILLAGE"	2025-28	Technology Deployer	CSIR- Mission Mode Project
Development of light weight glass foam utilizing waste glasses for insulation and construction and application	2023-26	Co-PI	CSIR- Mission Mode Project/ HCP
Utilization of marble waste to develop cost-effective sustainable building products	2020-22	Co-PI	FTT (2nd Tranche)
Development of compatible repair materials for stone masonry in heritage structures (Task 6B)	2018-20	Co-PI	Mission mode
Development of Flooring/ Wall Tiles-Paver blocks & Lightweight blocks using Kota stone waste	2016-18	Co-PI	FTT (1st Tranche)
Development of Engineered Lightweight Mud-Phuska Composite using Industrial-cum-Agricultural Wastes	2016-17	PI	CSIR-800

- **Industry sponsored:**

Title	Duration	Agency	Role
Studies of PU Foam Adhesive Material For Benchmarking the Mechanical Performance For Structural Applications	2025-26	M/s. Concrete Works Construction Chemicals Private Limited, India	PI
Comprehensive Assessment of Crystalline Waterproofing Admixtures For Sustainable And Long-Lasting Concrete Infrastructure	2025-27	M/s. Penetron India Private Limited, India	PI
To study the effect of Crystalline Admixture on the Physico-Mechanical, Microstructural, and Durability Properties of Concrete	2025-27	M/s. Pidilite Industries Limited, Mumbai, India	PI

Evaluation of PUF Panel (Polyurethane Foam) Properties	2025-26	M/s. Aqua Puf Panels & Heating System, India	PI
Diagonal Shear Behavior of AAC wall made using PU Foam Mortar	2025	M/s. Concrete Works Construction Chemicals Private Limited, India	Co-PI
Performance Evaluation of Polyisocenurate (PIR) Rigid Foam Panels	2025-26	M/s. ACE Builders & Engineers (ACE Prefab), India	PI
Development of Low carbon composite cement using performance improved thermo-mechanical activated pozzolanic red mud for sustainable development	2024-26	M/s. Vedanta Ltd., India	PI
Rehabilitation of Heritage Structure and Quality Assessment of Ongoing RCC Structures Construction Work in the Mahakaleshwar Temple Complex	2025	Shree Mahakaleshwar Mandir Prabandh Samitee, Ujjain	Co-PI
Performance Evaluation of PIR Panel	2025	M/s. Lloyd Insulation India Ltd	PI
Performance Evaluation of Sandwich Rigid Polyurethane Insulated Panel	2024-25	M/s. Suchi Foam Pvt Ltd, India	PI
Performance Evaluation of Polyurethane Sandwich Panel	2024-25	M/s. Kingspan Jindal Pvt Ltd, Gurugram	PI
Performance Evaluation of Polyisocyanurate (PIR) Foams for Thermal Insulation	2024-25	M/s. BNAL Prefabs Pvt Ltd, Chandigarh, India	PI
Performance Evaluation of IP Net Paints to be used in Southern Railways	2023-24	M/s. A.R.ENTERPRISES, Tamil Nadu, India	PI
Assessment Of Physico-Mechanical, Microstructural & Durability Parameters of Concretes Incorporating Crystalline Durability Enhancing Admixture	2023-24	M/s. Apple Chemie India Pvt Ltd., India	PI
Performance evaluation of crystalline waterproofing admixture on the mechanical properties of concrete	2023	CPWD, Faridabad, India	PI
Studies on Mechanical and Durability Properties of Normal and High Strength Concrete with Graphene	2022-23	M/s. Reliance Industries Limited, India	Co-PI
To Improve the technology of expanded clay aggregate- Thermal insulated mortar	2019-20	M/s. Rivashaa Eco Design Solutions P. Ltd., Ahmedabad, Gujarat, India	Co-PI

- **Technology Documentary: 09 Nos.**

1. Marble Waste to Market-Ready Green Building Products (2026). *https://www.youtube.com/watch?v=VByHJlO-eBQ*
2. Self-compacting Aircrete Composite (SAC) Roof/Floor Screed (2025). *https://www.youtube.com/watch?v=F4-tmcT06W4*
3. Low-Carbon Cement Concrete Composites Using Sustainable Chemical Admixtures (2025). *https://www.youtube.com/watch?v=JrNz0elipU8*
4. Building Products Using Kota Stone Waste – A Sustainable Innovation by CSIR-CBRI (2025). *https://www.youtube.com/watch?v=ikVqNgR1hRw*

5. Innovative Cool Roof Technology for a Cooler, Greener Future (2025). *https://www.youtube.com/watch?v=4GbS1FcF0hc*
6. Eco Cement Clinker using Low Graded Industrial Waste (2023). (URL: *https://www.youtube.com/watch?v=y3Iezkf9Ihk&ab_channel=CSIR-CBRI%28BhavanTarang%29*)
7. Building Products using Stone Wastes (2023). (URL: *https://www.youtube.com/watch?v=uINarOHzBog&ab_channel=CSIR-CBRI%28BhavanTarang%29*)
8. Value-added sustainable Building Materials using Kota Stone Waste (2019). Prepared by Agnii_GOI, Delhi. (URL: *https://www.youtube.com/watch?v=tu40JXa4jTY*)
9. Building Materials from Kota Stone Waste (2018). (URL: *https://www.youtube.com/watch?v=gcYo5RyH7jw&t=145s*)

(Rajesh Kumar)