

SANOOP PRAKASAN



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Education

- 2019 : **Indian Institute of Technology Madras (IITM), Chennai**
Master of Science (by research) in Civil Engineering
- 2014 : **National Institute of Technology, Calicut (NITC)**
Bachelor of Technology (B.Tech.) in Civil Engineering
- 2009 : **Bharath Vidya Mandir Senior Secondary School, Thrissur, Kerala**
All India Senior School Certificate Examination, Central Board of Secondary Education (CBSE)
- 2007 : **Bharath Vidya Mandir Senior Secondary School, Thrissur, Kerala**
All India Secondary School Certificate Examination, Central Board of Secondary Education (CBSE)

Work experience

- Energy Studies Institute (<https://esi.nus.edu.sg/>), NUS campus, Singapore: Research Associate from August 1st, 2023.
- UTOPIIC (www.utopiic.com), Faridabad/Delhi, India: LCA specialist from February 1st, 2022 to June 8th, 2023.
- UTOPIIC (www.utopiic.com), Faridabad/Delhi, India: Business development manager (part time remote working) from December 1st, 2021 to January 31st, 2022.
- GreenStory (www.greenstory.ca), Toronto, Canada: Junior LCA analyst intern (remote working) from May 3rd, 2021 to October 29th 2021.
- Tutorwaves Solutions Pvt. Ltd., Kottayam, Kerala: Mathematics Tutor for lower primary, upper primary, secondary, and high school students of USA and UK from November 16th, 2020 (on contract basis).
- Indian Institute of Technology Madras (IITM), Chennai, Tamil Nadu: Project associate of Indian Govt. sponsored research project “Design for Environmental Excellence: Life Cycle Assessment of Hybrid Composite Structures” during November 5, 2018 to January 13, 2020.

Internships / Industrial Visits

- Leitwind Shriram manufacturing limited, windmill manufacturing plant at Gummidipundi, Tamil Nadu: Site visit during 19th and 20th of December 2018, as a part of Life Cycle Assessment (LCA) case study for the project “Design for Environmental Excellence: Life Cycle Assessment of Hybrid Composite Structure”.
- Dalmia Cement (Bharat) Limited, two cement manufacturing plants at Dalmiapuram and Ariyalur, Tamil Nadu: Site visits during 23rd and 24th of December 2015, as a part of LCA case studies for the MS project.

- The India Cements Limited, cement manufacturing plant at Perambalur, Tamil Nadu: Site visit on 13th May 2015, as a part of course ‘Advanced Concrete Technology’
- UltraTech Cement Limited, cement manufacturing plant at Reddipalayam, Tamil Nadu: Two Site visits during 21st of April, and (14th - 15th) of May 2015, as a part of LCA case study for the MS project.
- IITM, Department of Civil Engineering, BTCM Division: Research internship undertaken during May 1 – July 10, 2013 (Project on “Design of Pre-stressing Setup for Experimental Investigation on the Mechanical Behaviour of Corroded Pre-tensioned Beams”).
- Central Public Works Department (CPWD), Thrissur, Kerala: Field internship undertaken for 1 month during May, 2012 (Foundation work at a construction site).

Projects

- GreenStory: Was part of apparel supply chain LCA projects for companies like Hanesbrands Inc., Radmor, Hoekey, Ecosa, Circular, Blissker, Stipe & stare, and Toad&Co.
- IIT Madras, Department of Civil Engineering: Worked at ‘*Design for Environmental Excellence: Life Cycle Assessment of Hybrid Composite Structures*’ under Uchchar Avishkar Yogana (UAY), Ministry of Human Resource Development (MHRD), Government of India (GOI).
- IIT Madras, Department of Civil Engineering, BTCM division: Research project named ‘*Study of sustainability parameters related to cement production in India*’ is completed for full filling the requirement of Master of Science degree (by research). Two notable outputs are as follows.
 - A spread sheet was developed based on ISO 14040 and ISO 14044, which can be used by LCA practitioners to perform LCA on a product or a process.
 - Inventory, energy use, and CO₂ emissions associated with clinker, Ordinary Portland cement (OPC) and Pozzolano Portland cement (PPC) within Gate to Gate system boundary are studied and reported for two typical Indian cement plants.
- IITM, Department of Civil Engineering, BTCM Division, India: *LC³ project - Phase 1 (Limestone Calcined Clay Cement)* in alliance with the École Polytechnique Fédérale de Lausanne (EPFL) and funding from the Swiss Agency for Development and Cooperation.
- National Institute of Technology, Calicut (NITC), Department of Civil Engineering: ‘*Development of Machine Management Model in Highway Construction Projects*’ – Bachelor’s degree Major Project.
- National Institute of Technology, Calicut (NITC), Department of Civil Engineering: Proposed a method to make *low cost furniture using PVC pipes embedded with the RCC* under Civil Engineers Association (CEA) (made a sample bench of that kind).
- National Institute of Technology, Calicut (NITC), Department of Civil Engineering: ‘*Performance Characteristics of Bamboo Reinforced Concrete Wall Panels*’ -Funded Project by Institute of Land and Disaster Management, Government of Kerala, Trivandrum, Kerala, India.
- IITM, Department of Civil Engineering, BTCM Division: ‘*Design of Pre-casting Setup for Experimental Investigation on the Mechanical Behaviour of Corroded Pre-Tensioned Beams*’ – Summer Internship project (May - July 2013).

Publications

- 1) **Prakasan, S., Palaniappan, S., Balaganesan, G, and Ramu, P. (2019). “Embodied energy assessment of manufacturing glass fiber reinforced polymer composite wind turbine blade.”** Indian Institute of Techology Madras, Chennai, India (Working paper).
- 2) **Prakasan, S., Raja, J., Ramkumar, N., Palaniappan, S., and Balaganeshan, G. (2019). “Sustainability assessment for 1.2 MW wind mill blade manufacturing.”** *TECHX - A Technology Exhibition of IMPRINT and Uchchar Avishkar Yojana (UAY) Projects - Poster,*

- Indian Institute of Technology Delhi, Delhi, India, 4 August 2019.
- 3) **Prakasan, S.,** Palaniappan, S., and Gettu, R. (2018). **"Study of energy use and CO₂ emissions in the manufacturing of clinker and cement."** *Journal of The Institution of Engineers (India): Series A*, Submission ID: IEIA-D-18-00195, Date of acceptance: 6th November 2019.
 - 4) Gettu, R., Patel, A., Rathi, V., **Prakasan, S.,** Basavaraj, A.S., Palaniappan, S., and Maity, S. (2019). **"Influence of Supplementary Cementitious Materials on the Sustainability Parameters of Cements and Concretes in the Indian Context."** *Materials and Structures*, DOI: 10.1617/s11527-019-1321-5, 1-11
 - 5) Gettu, R., **Prakasan, S.,** Rathi, V., and Anusha, S. B. (2017). **"Critical parameters in the Life-Cycle Assessment of cement-based systems."** *2nd International Conference on Calcined Clays for Sustainable Concrete - Poster*, Central University Las Villas (UCLV), Santa Clara, Cuba, 5-7 December 2017
 - 6) Gettu, R., **Prakasan, S.,** Patel, A., Rathi, V., Nagarath, K., Palaniappan, S., and Maity, S. (2016). **"Process mapping and preliminary assessment of energy consumption in Indian cement plants."** *Sustainable Built Environment (SBE) regional conference, Expanding Boundaries: Systems Thinking for the Built Environment*, Zurich, Switzerland, ETHZ, 13-17 June 2016, 430–435.
 - 7) Gettu, R., Patel, A., Rathi, V., **Prakasan, S.,** Basavaraj, A., and Maity, S. (2016). **"Sustainability Assessment of Cements and Concretes in the Indian Context: Influence of Supplementary Cementitious Materials."** *Sustainable Construction Materials and Technologies 4*, University of Nevada (UNLV), Las Vegas, USA, 7-11 August 2016.

Awards / Merits

- Recipient of Tutorwaves incentives: 1) Zero Cancellation windfall (multiple times), 2) Referral bonus, 3) Demo conversion incentive (multiple times), 4) Tutor Par Excellence (November 2021)
- Created more than 8 Eleven Plus (UK entrance test for secondary schools) question paper sets for tutorwaves
- Made a webinar presentation of "Continuity in calculus" at "Manorama Horizon," on 19th January 2021.
- Attended and made a presentation of 'Spreadsheet tool for Life cycle Assessment' at "Brightcon 2020 – Open Sustainability Conference," on 20th October 2020.
- Attended "Conference on Life Cycle Assessment" as a part 7th Edition of GreenCo Summit conducted by Confederation of Indian Industry (CII), on 27th July 2018.
- Attended "Workshop on Limestone Calcined Clay Cement (LC³)" as a part of 71st RILEM week and ICACMS conference, on 4th September 2017.
- Presented paper at the 4th International conference on "Sustainable Construction Materials & Technology" during 7th - 11th of August 2016.
- Attended and completed Doctoral School on "Limestone Calcined Clay - Cement Course: Characterisation methods" at EPFL in 2015 with 2 ECTS credits, for the period of 29th June to 1st July, 2015.
- Attended conference on "First international conference on calcined clays for sustainable concrete," during 23rd - 25th of June, 2015.
- Attended a 3-day national workshop on "Research methodologies for sustainable built environment" during 16th - 18th of October, 2014
- Secured 2nd place in 'Self Compacting Concrete', a team competition at 'TATHVA' Technical fair at NITC during October 2013.
- Secured 1st place in 'Erdbaumechanik', a team competition at 'DRISHTI' Technical fair at Trivandrum Engineering College (CET) during September 2013.
- Secured 2nd place in 'Situation Management', a team competition at 'DRISHTI' Technical fair at Trivandrum Engineering College (CET) during September 2013.

- Got selected for the IITM Summer Fellowship Programme 2013 in BTCM division, Department of Civil Engineering, IITM.
- Secured 3rd place in ‘Descartes Square’ a team competition at ‘TATHVA’ Technical fair at NITC during October 2012.
- Secured 2nd place in ‘Concrete Cube Testing’, a team competition at ‘DRISHTI’ Technical fair at Trivandrum Engineering College (CET) during September 2012.

Extracurricular Activities

- Volunteered in the ICI-IITM National Concrete Canoe Competition (NCCC).
- Senior Executive, Civil Engineering Association, NITC.
- Student Co-ordinator, ICI (Indian Concrete institute - NITC Chapter).
- Proposed a methodology (at TATHVA-2012, civil stall) to construct Perumthachan’s mystery stone pillar located at a temple near Vazhappilly, Changanassery, Kerala, India (It’s still an unsolved mystery structural element connection).
- Assisted senior students in ‘TENSEGRITY’ tower project at NITC during the academic year 2011-2012.

Computer skills

Programming Languages : C and C ++.
 Software : MS Office, GaBi, Basics of SimaPro, QGIS, and MATLAB.

Languages

Speak: English, Malayalam and Tamil
 Write: English and Malayalam
 Read: English and Malayalam

Personal & Contact Details

D.O.B : 09/06/1991

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References

Reference Person - I (*Major project guide during Bachelors Degree*)

Dr. Arun Chandramohan
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National Institute of Construction Management and Research
Farmagudi, Goa, India
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Reference Person - II (*MS research project guide and Co-Project Investigator during project associate tenure*)

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Reference Person - III (*Employer*)

Hardik Jhanb
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