

ANUSHA SHIMOGA BASAVARAJ

Email: anushabasavaraj@gmail.com

Phone: +91-9845525699

Educational Profile

A Ph.D. student at Indian Institute of Technology Madras working with Prof. Ravindra Gettu on the thesis titled 'Sustainability Assessment of Concrete Systems with Alternate Binders'. This work emphasizes the importance of conducting life cycle assessment studies for cement and concrete systems in India and using the eco efficiency parameters for sustainability assessment. A part of the thesis is supported by low carbon cement project (LC3) funded by Swiss Agency for Development and Cooperation (SDC)

PROGRAM	College/Institute	MARKS OBTAINED	UNIVERSITY/ BOARD, YEAR OF PASSING
Ph.D.	IIT Madras	8.42 (CGPA)	Pursuing
M.Tech in Construction Technology	B.M.S College of Engineering, Bangalore	82%	Vishweshwarayya Technological University, (2015)
B.E. in Civil Engineering	Bangalore Institute of Technology, Bangalore	70.3%	Vishweshwarayya Technological University, (2012)
Pre-University (XII)	D.V.S COMPOSITE P.U college, Shivamogga	80%	Department of Pre-University Education, Bangalore, (2008)
10 th Standard (X)	D.V.S COMPOSITE HIGH SCHOOL, Shivamogga	87%	Karnataka Secondary Education Board, Bangalore, (2006)

Academic Excellence

Secured **GOLD MEDAL** from Vishweshwaraya Technological University for scoring highest marks in **Advanced Concrete Technology** in the year 2013.

Experience

- Currently working as a half time research assistant (HTRA) as a part of Ph.D. program at Indian Institute of Technology Madras
- Worked as a guest editor for a special issue on 'Sustainability of Concrete Through Blended Binders' - Indian Concrete Journal (ICJ), February - 2020

- Teaching assistant for Online NPTEL course on Advances in Concrete Technology, January – May, 2019
- Teaching assistant for post graduate course on Modern Construction Materials, July-November, 2018
- Teaching assistant for undergraduate course on Concrete Technology, January – May 2017 and January – May 2020
- Worked as a lecturer in RR INSTITUTE OF TECHNOLOGY, Bangalore during 2012-2013.

Research experience

- Worked as a Project Officer in BTCM Division, Department of Civil Engineering, IIT Madras with Prof. Manu Santhanam and Prof. Ravindra Gettu from July 2015 to June 2016
- Worked as a Project manager for LC3 project in IIT Madras from July 2015 to July 2017

Areas of Interest

- Life cycle assessment of cement and concrete
- Durability of concrete systems
- Alternate binders for cement
- Alternative building technologies

Professional affiliations

- Member of RILEM since 2018
- Student member, ACI

Publications

(a) Paper(s) Published in peer – reviewed journals

1. R. Gettu, R.G. Pillai, M. Santhanam, **A.S. Basavaraj**, S. Rathnarajan and B.S. Dhanya, "Sustainability-Based Decision Support Framework for Choosing Concrete Mixture Proportions", *Materials and Structures.*, DOI: 10.1617/s11527-018-1291-z, 51:165, 16 p. (2018).
2. R.G. Pillai, R. Gettu, M. Santhanam, S. Rengaraju, Y. Dhandapani, S. Rathjnarajan, , **A.S. Basavaraj**, (2018) "Service Life and life cycle assessment of reinforced concrete systems with limestone calcined clay cement (LC3)", *Cement and Concrete Research*
3. R. Gettu, A. Patel, V. Rathi, S. Prakasan, **A.S. Basavaraj** , S. Palaniappan and S. Maity "Influence of incorporating supplementary Cementitious materials on the sustainability parameters of cements and concrete in the Indian context" *Materials and Structures.*, DOI: 10.1617/s11527-018-1291-z, 51:165, 16 p. (2019).

(b) Full Paper(s) Published in Conference Proceedings

1. Gettu, R., Patel, A., Rathi, V., Prakasan, S., **Basavaraj, A. S.**, and Maity, "Sustainability Assessment of Cements and Concretes in the Indian Context: Influence of Supplementary Cementitious Materials", S. Proc. Fourth Intl. Conf. on Sustainable Construction Materials and Technologies (SCMT4) (Las Vegas, USA) (2016), Eds. N. Ghafoori, P. Claisse, E. Ganjian and T.R. Naik, paper S299, pp. 1142-1150.
2. Radhakrishna G Pillai, Manu Santhanam, Ravindra Gettu, Yuvaraj Dhandapani, Sripriya Rengaraju, Sundar Rathnarajan, **Anusha Basavaraj**: Service life estimation and life cycle assessment for portland cement, fly ash, and LC3 systems, Service-life prediction of concrete, 3rd meeting, the corvallis workshops, July 16-19, 2017
3. R Gettu, R.G. Pillai, J. Meena, **A. S. Basavaraj**, M. Santhanam and B.S. Dhanya, "Considerations of Sustainability in the Mixture Proportioning of Concrete for Strength and Durability", 2nd Intl. Workshop on Durability and Sustainability of Concrete Structures (Moscow, Russia)", ACI Italy Chapter, 11 p. (2018); *also* American Concrete Institute Special Publication, ACI SP 326.
4. Ravindra Gettu, Radhakrishna G. Pillai, Manu Santhanam, Sundar Rathnarajan, **Anusha Basavaraj**, Sripriya Rengaraju, Yuvaraj Dhandapani "Service life and Life cycle assessment of reinforced concrete with flyash and limestone calcined clay cement", Sixth International Conference on the Durability of Concrete Structures, Leeds, UK,(2018)
5. Ravindra Gettu, Manu Santhanam, Radhakrishna G. Pillai, Yuvaraj Dhandapani, Sakthivel T., Sripriya Rengaraju, Fathima Suma M., Sanoop Prakasan, Sundar Rathnarajan, and **Anusha S. Basavaraj**, 'Recent research on limestone calcined clay cement (LC3) at IIT Madras', Conference in honor of the centennial of the laboratory of construction materials and Prof.Karen Scrivener's 60th birthday 19-20-21-22 August 2018, Lausanne, Switzerland
6. Ravindra Gettu and Anusha S Basavaraj: Life Cycle Assessment of LC3: Parameters and Prognoses, 3rd International Conference on Calcined Clay for Sustainable Concrete, Delhi, 2019

(c) Posters

1. **Anusha S. Basavaraj** and Ravindra Gettu, "Environmental impact assessment of cements in India – Needs, Progress and Challenges", 23rd – 28th February 2020, Gordon Research Conference, Ventura, CA, USA
2. **Anusha S. B** and Ravindra Gettu, "Life cycle assessment of typical cements in Indian Context" Concrete Research in India – Research Scholar Symposium, IIT Bombay, 13th December, 2018, Mumbai
3. Ravindra Gettu, Sanoop Prakasan, Vaibhav Rathi and **Anusha S. B**, "Critical parameters in life cycle assessment of cement- based systems", 2nd International Conference on Calcined Clay for Sustainable Concrete", 5th to 7th December, 2017, Havana, Cuba.

Invited Talks/Presentations:

- Delivered a talk on 'Life cycle assessment of cement: Introduction' to the students of civil engineering at New Horizon College of Engineering, Bangalore, Karnataka, India in September, 2018

- Abstract submitted titled ‘Indexing concrete proportions for sustainability by integrating environmental, mechanical and durability parameters’ for oral presentation at GRS, Ventura, CA, USA (February, 2020)

Travel grants/fellowships/Internships

- Industrial training in L & T construction (Prestige Sunrise park), Bangalore in the year 2014 (June and July).
- Travel grant for Doctoral school at LMC, EPFL, Switzerland, 2016
- Institute travel grant for attending GRC and GRS at Ventura, CA, USA

Distinctions and Awards

- Secured 1st rank in the Advanced Concrete Technology (ACT) course conducted by IIT Madras in December, 2015
- Coordinated and organized various workshops and conferences during Ph.D. program
- Secured 1st place in Concrete Quiz at RVCE, Bangalore (Concrete Fair-2014)
- Secured 2nd place in Pick and Speech (Concrete) at RVCE, Bangalore (Concrete Fair- 2014)
- Secured 2nd place in Concrete Quiz at RVCE, Bangalore (Concrete Fair -2013)

References

- | | |
|---------------------------------|---------------------------------|
| 1. Prof. Ravindra Gettu | 2. Prof. Manu Santhanam |
| Department of Civil Engineering | Department of Civil Engineering |
| IIT Madras | IIT Madras |
| Email: gettu@iitm.ac.in | Email: manus@iitm.ac.in |

Address for communication

Anusha S. B
BSB 207b, BTCL division
Department of Civil Engineering
IIT Madras
Chennai – 600036
Tamil Nadu, India

Address of Residence

Anusha S. B
#700, Anubandha
5th main, Muneshwara Block
Pipeline road, T. Dasarahalli
Bangalore- 560067
Karnataka, India