

## CURRICULUM VITAE



**Name** : Dr. SUBHA V

**Designation** : Professor in Civil Engineering

**Official Address** : Division of Civil Engineering, School of Engineering, Cochin University of Science and Technology, Cochin-22, Kerala

**Home Address** : ‘Tattva- Palaparambil’, Orient Park, Popular Road, Vaduthala, Cochin-23, Kerala

**Telephone No.** : 9447292584(M), 484 2405500 (R)

**Email Id** : v.subha@cusat.ac.in  
: subhakamal@gmail.com

**Area of Research** : water resources, solid waste management, materials and construction, sustainable development in civil engineering – Housing, Green buildings

### **Educational Qualification:**

**PhD** – Delft University of Technology (TUD), The Netherlands, 2006.

**Master** - College of Engineering (CET), Trivandrum, Kerala University, India, 1995.

**B.Tech** - Mar Athanasius College of Engineering (MACE), Mahatma Gandhi University, India, 1991.

**PhD Thesis:** Sustainable Watershed Management-An illusion or Reality- case of Kerala state in India

**Chief Promoters :** Prof. dr. ir. H. H. G. Savenije &  
Prof. dr. ir. P. van der Zaag  
Delft University of Technology, The Netherlands &  
UNESCO- IHE- The Institute of Water Education,  
The Netherlands

**Awards and Professional Recognition:**

1. **IV Rank** for B.Tech (Civil ), M. G. University 1991
2. **Dutch Scholarship** for pursuing PhD in Netherlands , 2003-2006
3. **Appreciation speech from Chief Promotor**, Prof. H H G Savenije, Professor and Head, Water Resources Section, TU Delft, The Netherlands dated 19 Dec 2006.
4. **Governing Body Member** National Coir Research Management Institute, (NCRMI)Trivandrum – Since April 2017 , **Technical committee member**, NCRMI, Trivandrum (2007 – 2016)
5. The **chapter** entitled ‘Use of Coir Geotextiles for Soil and Water Conservation for Crop Production – Case Studies from Kerala, South India’.(accepted in 2016, published in **feb.2018**) In *Advances in Irrigation Management of Horticultural Crops: An Overview* under book series *Innovations in Agriculture & Biological Engineering.*, Apple Academic Press, **CRC publication, New Jersey, USA** Hardback Price: \$159.95 US , Hard ISBN: 9781771885928, E-Book ISBN: 9781315204307
6. **Appreciation Certificate from IGBC** , India for active involvement and contribution in IGBC student chapter initiatives on green concepts, 2019
7. **Member, Board of Studies-** Civil Engineering, APJ Abdul Kalam Technological University, Kerala.

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|---|-------------|
| <b>No. of Publications</b>                  | <b>: 80</b> |
| International Journals                      | : 29        |
| International Conferences                   | : 28        |
| National Conferences                        | : 10        |
| Book (International)                        | : 1         |
| Chapter (in International Book Publication) | : 1         |
| Article in book (International)             | : 7         |

**Employment Details - Teaching**

| Designation                       | Institution   | Duration   |            | Total period<br>yr. m. days |
|-----------------------------------|---|------------|------------|-----------------------------|
|                                   |   | From       | To         |                             |
| <b>Professor</b>                  | School of Engineering<br>(Department under CUSAT)                     | 26-12-2014 |            | Till date                   |
| <b>Associate Professor</b>        | School of Engineering<br>(Department under CUSAT)                     | 26-12-2011 | 25-12-2014 | 3 yrs                       |
| <b>Reader</b>                     | School of Engineering<br>(Department under CUSAT)                     | 26-12-2008 | 25-12-2011 | 3yrs                        |
| <b>Lecturer</b><br>(Senior Scale) | School of Engineering<br>(Department under CUSAT)                     | 26-12-2003 | 25-12-2008 | 5yrs                        |
| <b>Lecturer</b>                   | School of Engineering<br>(Department under CUSAT)                     | 07-06-1999 | 25-12-2003 | 5yrs                        |
| <b>Lecturer</b>                   | Rajiv Gandhi Institute of Technology, Govt. College, Kottayam, Kerala | 16-09-1998 | 01-03-1999 | 5 months,<br>15 days        |

**Research Experience – 19 Yrs**

- **PhD awarded to two research scholar (part-time)** by CUSAT in the area of sustainable solid waste management (2017) and sustainable building material-geopolymer binder and building blocks from terracotta tile waste (2018).
- **Research Project Completed**–(Principal Investigator)
  - Use of Coir fibre as reinforcement in cement mortar, Funding Agency- National Coir Research Management Institute, Government of Kerala, Trivandrum - 18.08 lakhs

- Development of self-healing bacterial concrete for durable and sustainable construction, Funding Agency-TEQIP – Phase III– Seed Money for research projects- 1.00 lakh

➤ ***Ongoing research –***

- Feasibility study of enhancing properties of Coir in building construction as a sustainable alternative to cement mortar.
  - Feasibility study of bacteria based self healing concrete - sustainable solution to reduce seepages in canal lining.
  - Coastal Community Resilience Analysis: A tool to measure and enhance resilience of coastal communities
- Research Scholars (part-time) – 6
- ***P G Dissertation*** – Impact of conversion of low lying areas for residential development in Trivandrum city with special reference to surface drainage.
- ***B.Tech Project*** - Design of Idamalyar Irrigation Project

**Industrial Experience – 5 Years**

- **Project Engineer- Link India Homes (P) Ltd (1995-1998)**
- Planning, design and supervision of high rise apartments.
  - Interior design of flats and residences.
  - Water and Sanitation planning and implementation
- **Trainee Engineer – Cochin Port Trust, W. Island (1992-1993)**
- Design of Structures – Auditorium of Kendriya Vidyalaya & staff quarters
  - Soil Investigation
  - Construction and Maintenance of buildings
  - Hydrographic Surveying
- **Trainee Engineer – A V Thomas & Company ,W. Island (1991-1992)**
- Tendering
  - Estimation and Measurements
  - Scheduling and Report preparation

**Research paper presented/ invited talk in International Conferences in India and Abroad**

1. Watershed management conference, ASCE, USA (2005)

2. World Ecological Restoration Conference, SER, Spain (2005)
3. World Water Congress, New Delhi, India (2005)
4. IWRM conference , Germany (2006)
5. GEOMATE Conference, Australia(2014)
6. WGBC -IGBC congress, Jaipur, India (2017) – Delegate invitation
7. Future Earth Workshop, Japan (2018)- Invited Talk
8. Indian Green Building Congress Hyderabad (2018)
9. Water Resources Modelling , TUDelft , The Netherlands (2018)
10. Micro-irrigation conference, Aurangabad, India Delegate Invitation(2019)
11. Indian Green Building Congress Hyderabad (2019) – Delegate invitation
12. Innovative Technologies for Clean and Sustainable Development, Chandigarh (2020)
13. G20 C20 Civil Engineering Innovations for Sustainable Communities with Net Zero Targets, (2023), Bangalore

**Editorial Board –International Journal/ conference**

1. Journal of Multi-disciplinary Research (CJMR), Sri Lanka
2. Teresian Journal of Community Research (TJCR), India

**Reviewer –International Journal/ conference**

Journal of Cleaner Production, since 2008.

Journal Physics and Chemistry of Earth, since 2008

Journal of Sustainable Cities and Society since 2019

Journal of Construction and Building Materials 2018

Materials Today Proceedings

SECON conference, Since 2017

Geomate conference, Australia since 2014.

Architecture and Civil Engineering conference, organized by Global Science and Technology Forum, since 2013.

JCCME annual conference organized by The International Academy of Science and Engineering for Development (IASSED) since 2016.

International Conference on Civil Engineering Advancements in Sustainable Infrastructure Development and Environment – CEASIDE, 2018

Emerging Trends in Engineering, Science & Technology (ICETEST\_2018)

Kerala

- International conference on Innovative Trends in Engineering for sustainability (ICITES-2021), India Jan 9-11, 2021

**Memberships in professional bodies:**

- Life Member Indian Geotechnical Society (IGS)
- Life Member Indian Society of Technical Education (ISTE)
- Life Member Indian Society of Systems for Science and Engineering (ISSE)
- Life member European Water Resources Association (EWRA)

**Invited Lectures/ Chairmanships / Subject Expert at National / International/ Regional level**

| Details of event   | International/<br>National<br>/Regional |
|--|---|
| <b>I. INVITED SPEAKER/ KEYNOTE ADDRESS</b>   |   |
| Invited Lecture ‘Sustainable Design and Practices in Construction’, Centre for Water Resources Development and Management, Kottayam, 09-08-2023  | Regional                                |
| Key note ‘Sustainable concepts in Civil Engineering- Role to attain SDGs, G20 C20 International conference on Civil Engineering Innovations for Sustainable Communities with Net Zero Targets, Bangalore 7-8, July 2023. | International                           |
| Panel Discussion ‘Effluent Management and Eco-restoration’, Organised by Technology Innovation Foundation of IIT Palakkad, 25 February 2023.   | National                                |
| Panel Discussion ‘Energy conservation Building Code & Eco Nivas Samhitha’, Asian School of Architecture and Design Innovation, 20 Dec 2022   | Regional                                |
| Invited talk ‘Online Webinar on “Mind The Gap. Leave No One And No Place Behind”, World Habitat Day, The Institution Of Engineers (India), Kochi Local Centre, 03-10-2022  | Regional                                |
| Panel Discussion “Pedestrian Pathways: The Right To Life And A Road To Sustainability” 11- 06- 2022, Centre for Environmental Efficiency, Kochi  | Regional                                |
| Technical talk on ‘Sustainable Development in Civil  | Regional                                |

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|--|---------------|
| Engineering -Need of the hour' – Government polytechnic first year one week internship programme , Kalamassery on 04-05-2022   |               |
| Technical Talk on Birth Anniversary celebration of Mahatma Gandhi on Water Conservation, 30-09-2019  | Regional      |
| Technical presentation 'Use of coir geotextiles for soil and water conservation' Wayanad Action Plan- jointly organized by TU Delft and mByom Consulting and Management Services LLP, Chennai, August 2019 | Regional      |
| Key note on Sustainable development concepts in the FDP on "Emerging Trends In Utilization & Conservation Of Energy For Sustainable Development" Toch Institute of Technology, 15- 19July 2019.            | National      |
| Keynote in the International Conference on Sustainable Innovations in Civil &Mechanical Engineering (ICSICM2019) Mangalam College of Engineering, Kerala 16 -17, May 2019                                  | International |
| Technical Talk on World Water Day , Watershed Management, 22-03-2019, Kerala Water Authority, Ernakulam  | Regional      |
| Technical Talk on World Water Day, 21-03-2019, water conservation – need of the hour Albertian Institute of Technology, Ernakulam  | Regional      |
| Resource person in STTP on Green, Energy, Environment, Technology & Engineering for Sustainable future , 10-12-2018, SOE CUSAT   | Regional      |
| Rajadhani College of Engineering, Attingal-(2018) Water Crisis and management techniques-Need of the Hour, 29-01-2018.   | Regional      |
| Faculty Development Programme-Sustainable Development through Green Technology, AISAT, Ernakulam( 2017) Water Resources Management, 13-12-2017.  | Regional      |
| Technical Talk on World Town Planning Day –The Blue Spaces as an element of Planning, Govt. Engineering college, Thrissur( 2017) Rain bow of water, 10-11-2017.  | Regional      |
| UGC sponsored National seminar on Sustainable Resource   | National      |

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|---|---------------|
| Management-Tools and Techniques, St.Therasa's college, Kochi (2014) Water Resources Management, 08-10-2014.   |               |
| Short Term course on Modern Trends in Energy Environment and Green Technology, CUSAT, (2014), 24-04-2014.   | National      |
| K.R. Gouriamma College of Engineering for Women Cherthala, (2014)- Water Crisis and Management Techniques –Need of the hour, 23-10-2014.                                  | Regional      |
| Laurie Baker International School of Habitat Studies, Trivandrum in the theme organized by Institutes of Engineers, Palghat(2014),Water Resources Management, 01-03-2013. | Regional      |
| Laurie Baker International School of Habitat Studies (LABISHaS), Ernakulam (2013) Waste Management in Construction, 19-02-2013.   | National      |
| K.R. Gouriamma College of Engineering for Women, Cherthala, (2013), 11-10-2013.   | Regional      |
| Short Term Course on Modern Materials & Methods in Engineering, ISTE, CUSAT (2011)- Water Crisis and management techniques, 09-05-2011.                                   | National      |
| <b>II. CONFERENCE CHAIR</b>   |               |
| International conference on Recent Advances in Civil Engineering, ICRAE 2022, 01-03 December 2022   | International |
| Innovative Technologies for Clean and Sustainable Development, 19-21, February, Chandigarh (2020)   | International |
| International conference on Recent Advances in Civil Engineering ICRAE 2020, 15-17 July CUSAT, India  | International |
| International conference on Sustainable Innovations in Civil & Mechanical Engineering, ICSICM-2K19,16-17 May 2019, India  | International |
| International conference on Green buildings and Sustainable Engineering GBSE'19 , 19-20 Feb 2019, India   | International |
| International conference GEOMATE, Australia (2014), 20-11-2014.   | International |



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| Trends and Advances in Civil Engineering (TRACE 2014) Jan 24-25, SNGCE, Kadayirippu, Kolencherry, India.   | National |
| National Conference on Technological Trends (NCTT2014), Trivandrum, 22-08-2014.  | National |
| National workshop on Modern Techniques in Geotechnical and Construction Engineering, CUSAT (2013), 27-09-2013.   | National |
| Recent Advances in Structural Engineering RASE2013, CUSAT, (2013), 14-12-2013.   | National |
| <b>III. SUBJECT EXPERT</b>   |          |
| Chairman, Board of Adjudicators of the PhD defense Kerala University, Trivandrum on 27-07-2022   | State    |
| Interview Board , Professor, Mahatma Gandhi University, Kerala, 14-01-2022   | State    |
| Interview board for the selection of Assistant Engineer, Devasom Board, Kerala 30-11-2021  | State    |
| Interview board for the selection of faculty members various posts in Civil Engineering MGM College of engineering and technology, Pampakuda, Ernakulam 20-09-2020 | State    |
| Oruma Programme under Mezhuveli Grama Panchayat, Pathanamthitta, technical gudence to construction works, 2017   | State    |
| Kerala Technological University Inspection Team in Rajagiri College of Engineering and Technology (2017), 02-05-2017.  | State    |
| Kerala Technological University Inspection Team in SCMS College of engineering and Technology (2017), 03-05-2017.  | State    |
| Interview board for the selection of Assistant Professor (contract) in Civil Engineering Model Engineering College, Thrikkakara, Ernakulam (2016), 21-07-2016.     | State    |
| Interview board for the selection of Assistant Professor in Civil Engineering Department, KMEA Engineering College, Ernakulam (2015), 03-08-2015.                  | Regional |

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| Paper Presentation Contest for Students in AVANZA'14,AISAT, Ernakulam,-(2014), 15-02-2014.                                 | Regional |
| Reviewer in International conference ICMF 2013 – Govt. Engineering college, Thrissur (2014), 6-8 Nov2013.                  | National |
| Interview board The Kerala Minerals and Metals Ltd, for the selection of Executive Trainee –Civil (2014), 19-09-2014.      | National |
| Interview Board Member, Rajiv Gandhi Centre for Aqua Culture, Govt of India undertaking), Kochi, (2013), 02-07-2013.       | National |
| Inspection Committee of provisional Recognition in Kallupara Engineering College ,CUSAT(2011), vide letter dtd 26-07-2011. | Regional |
| Board of Examiners of M.Tech Thesis, Anna University, 2011, vide proceedings dtd 24-6-2011.                                | National |
| <b>IV. EXTERNAL EXAMINER</b>   |          |
| Doctoral Committee Member, TKM college of Engineering, Kollam, Since 2021  | Regional |
| Doctoral Committee Member, Government college of Engineering, Thrissur, Since 2019   | Regional |
| Doctoral Committee Member, Kerala University of Fisheries and Ocean Studies, Kochi, Since 2019                             | Regional |
| M.Tech Viva-Voce Examination, Government College of Engineering,(GEC) Thrissur (2017), 16 Sep2022                          | Regional |
| B.Tech Project external subject Expert, TochH Institute of Science & Technology, Cochin, 11-12 June 2019                   | Regional |
| B.Tech Project external subject Expert, Rajagiri school of Engineering & Technology, Cochin, 28Mar2019                     | Regional |

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| M.Tech Viva-Voce Examination, Government College of Engineering,(GEC) Thrissur (2017), 19Aug2019  | Regional |
| M.Tech Viva-Voce Examination, Federal Institute of Science and Technology (2018), 21Dec2018.      | Regional |
| M.Tech Viva-Voce Examination, Government College of Engineering,(GEC) Thrissur (2017), 14Aug2018. | Regional |
| PhD Thesis Evaluation, Mahatma Gandhi University, Kerala  | Regional |
| M.Tech Viva-Voce Examination, Government College of Engineering,(GEC) Thrissur (2017), 22Aug2017. | Regional |
| B.Tech Viva - voce, Toch- Institution of Technology, Ernakulam (2017), 26-28 Apr 2017.            | Regional |
| M.Tech final semester Viva voce examination, College of Engineering, CET- TVM (2015), 18Nov2015.  | Regional |
| M.Tech final semester Viva voce examination, College of Engineering, CET- TVM (2015), 16Nov2015.  | Regional |
| MSc. Environmental Technology Dissertation Evaluation,CUSAT (2015), 01Aug2015.                    | Regional |
| B.Tech Viva - voce, Toch- Institution of Technology Ernakulam (2014), 21-23 Apr 2014.             | Regional |
| M Tech Thesis evaluation, Anna University(2012), vide letter 28June2012.                          | National |
| <b>V. MODERATOR</b>   |          |
| National Seminar organized by Coir Development Department, Alleppey (2017), 04Feb2017.            | National |
| <b>VI. JUDGE</b>  |          |

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| CBSE-Regional Science Exhibition- 2018, Toch Public School, Ernakulam (2018), 04-05 Jan 2018. | State    |
| Staff Co-ordinator Scienza 2018 in events, CUSAT Bridge Gap, Jam, CAAD Lab in Science Week    | Regional |

## CO-ORDINATOR

| Title of the programme   | Duration                  | coordinator                               | Funding Agency                 |
|--|---------------------------|---|--------------------------------|
| One day seminar on 'RISE the CUP,  | 15-03-2023                | Division of Civil Engineering, SOE, CUSAT | CUSAT                          |
| Joint Organising Secretary ICRAACE 2022, CUSAT   | 01-03<br>December<br>2022 | Division of Civil Engineering, SOE, CUSAT | CUSAT                          |
| One day seminar on Women Empowerment, Safety and Legal awareness   | 16-03-2022                | Dr. Subha V & Dr. Deepa Balakrishnan      | TEQIP-Phase -III, SOE, CUSAT   |
| One day Webinar – Lecture Series on Formwork for Concrete Structures - Industry Practices in Technology and Safety | 28January2021             | Dr. SubhaV & Dr. Abdu Rahiman             | TEQIP – Phase -III, SOE, CUSAT |
| One day Webinar – Lecture Series on Bridging the Gap between theory and Practice in Construction Industry          | 21January2021             | Dr. Subha V & Dr. Abdu Rahiman            | TEQIP – Phase -III             |
| One day Webinar – Lecture Series on Planning and   | 27August2020              | Dr. Subha V & Dr. Abdu Rahiman            | TEQIP – Phase -III             |

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| Procurement aspects in Construction Industry  |                          |                                |   |
| One day workshop on HSE in Construction Industry  | 03January-2020           | Dr. Subha V & Dr. Madhu G      | TEQIP – Phase -III                                |
| One day workshop on Innovations in Construction Industry                                      | 03January2020            | Dr. Subha V & Dr. Abdu Rahiman | TEQIP – Phase -III                                |
| Two day workshop on Challenges and Opportunities in Construction Industry,                    | 03-04 September 2019     | Dr. Subha V & Dr. Abdu Rahiman | TEQIP – Phase -III                                |
| One day workshop on Resilient Infrastructure Development                                      | 25-07-2019               | Dr. Subha V & CPPR, Kochi      | Teqip-III   |
| Erudite Scholar in Residence Programme – Scholar Dr. Bert Enserink, TU DELFT, The Netherlands | 04-09 February 2019      | Dr. Subha V                    | Kerala State Higher Education Council, Trivandrum |
| STTP on Green, Energy, Environment, Technology & Engineering for Sustainable future           | 10-14 December 2018      | Dr. Subha V & Dr. Roy M Thomas | TEQIP – Phase -III                                |
| Scienza 2018  | 16-02-2018 to 01-03-2018 | Staff co-ordinator JAM         | SOE, CUSAT  |
| Scienza 2018  | 16-02-2018 to 01-03-2018 | Staff co-ordinator Auto CAD    | SOE, CUSAT  |

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| Sasthrayaan   | 27-28<br>February 2018   | Faculty<br>coordinator            | CUSAT<br>Science week<br>celebration  |
| IGBC monthly events<br>for Students of SOE  | 14 March<br>2018         | 6 March 2019                      | IGBC student<br>chapter, SOE<br>CUSAT |
| STTP in Geosynthetics<br>in Civil Engineering<br>with special reference<br>to Natural Geotextiles | 2-13<br>December<br>2002 | Dr. Beena K S &<br>Subha V        | AICTE-ISTE                            |
| STTP in Sustainable<br>Technologies in<br>Engineering   | 18-22 March<br>2013      | Dr. Deepa G Nair<br>& Dr. Subha V | TEQIP –<br>Phase -II                  |

## **ORGANIZING COMMITTEE MEMBER/ADVISORY COMMITTEE MEMBER**

### **Organizing Committee Member**

- National Conference in Recent Advancement in Civil Engineering , Biennial conference organized by Division of Civil Engineering, School of Engineering, CUSAT – Since 2004
- Organizing/ Technical committee member , International Conference on Energy, Environment, Materials, and Safety, ICEEMS'14 organized by School of Engineering, CUSAT
- Organizing/ Technical committee member- International Conference On Recent Trends In Engineering & Technology, ICORRET-2016, organized by School of Engineering, CUSAT
- International Conference Recent Advancement in Civil Engineering (ICRACE'2016, ICRACE'2020 , ICRACE2022 organized by Division of Civil Engineering, School of Engineering, CUSAT

### **Advisory Committee Member**

- Annual International Conference on Emerging Research Areas(AICERA,18-20 July2019)

### **Technical Committee Member**

- International Joint conference on Civil and Marine engineering, (JCCME2020) November 23-25,2020, New Zealand

- International conference on Innovative Trends in Engineering for sustainability (ICITES-2021), India Jan 9-11, 2021

### **Responsibilities other than Teaching in University & Division**

Work Committee Member: School of Engineering 2017 onwards  
P. T. A Executive committee member: School of Engineering (from 2017 onwards)  
Science week : Event in charge (civil engg) 2018  
IGBC student chapter : Initiative taken to launch IGBC chapter in SOE & staff Co-ordinator (2018)  
NBA committee member : 2012-2016  
Alumini staff co-ordinator : 2012-2016  
Staff Advisor (i) 2018 batch (ii) 2012-2016 (iii) 2005-2009.  
Setting up laboratory: Building Technology & NDT Laboratory (2000-2002)  
Lab - in- Charge :Building Technology & NDT Laboratory (2000-2003 & 2006-2015)  
Planning & implementation of Interior Design works : Seminar Hall, Laboratory Block, SOE  
Organising committee member/ Session committee chairman & :RACE-Biennial National/ International Technical committee member conference organized by Division of Civil Engineering, CUSAT since 2004  
Subject Expert Inspection Team : Kallupara Engineering College CUSAT Affiliation (2011)  
B.Tech Curriculam :Syllabus revision – 1999 onwards  
Chairman Valuation camp : IV sem & VI sem (2014, 2015)  
Research committee member : School of Engineering CUSAT  
Doctoral committee member : Division of Civil Engineering, CUSAT  
Question Paper Setter :CUSAT & Kerala University.  
Project Guide :B.Tech and M.Tech students, SOE.  
Organising/ Technical committee :ICEEMS'14, ICORTET'16  
Co-ordinating and accompanying students for industrial visits to Idukki dam, ready mix concrete plant, airport and other construction sites.  
Placement Co-ordinator B Tech Civil 18-22 batch  
Duties assigned by Division Head/ Principal of SOE in connection with all extracurricular activities in school.

### **Course handled in the last 5 years**

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| Water Resources & Irrigation Engineering | - V semester  |
| Building planning and Drawing            | - IV semester |

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| Fluid Mechanics                             | - IV semester   |
| Architecture and Town planning              | - VIII Semester |
| Highway Engineering Laboratory              | - V Semester    |
| Building technology & NDT laboratory        | - VIII Semester |
| Civil Engineering Workshop                  | - I semester    |
| Structural Engineering Laboratory           | - VIII Semester |
| Retrofitting & Rehabilitation of Structures | - VIII Semester |

### Details of Publications

| Type of publications         | Year | Papers published  |
|------------------------------|------|---|
| <b>International Journal</b> | 2023 | 1. Lekshmi M.S. Subha Vishnudas and Anil K R. Effect of coir fiber reinforcement on flexural and compressive strengths of masonry mortar, Journal of Materials in Civil Engineering, Accepted for publication.                            |
|                              |      | 2. Lekshmi M.S. Subha Vishnudas and Anil K R. Experimental investigation on acoustic performance of coir fiber and rice husk acoustic panels, Applied Acoustics, Volume 204, 109244.  |
|                              | 2021 | 3. Lekshmi M.S. Subha Vishnudas and Anil K R, Lignocellulosic materials as reinforcement and replacement for binders in masonry mortar, Journal of Construction and Building Materials, 282 (2021) 122607.                                |
|                              | 2020 | 4. Lekshmi M.S. Subha Vishnudas and Deepa G.Nair, Strength, Sorptivity and shrinkage characteristics of cow dung stabilized mud mortar, materials Today Proceedings, Materials Today: Proceedings, Volume 32, Part 4, 2020, Pages 782-787 |
|                              | 2018 | 5. Athira Ravi, Subha Vishnudas (2018)., Ecological Footprint And Waste Footprint of Kochi City, India–A Combined Analysis, The Journal of Solid Waste Technology and Management, Volume 44, Number 4, pp 343-355                         |
|                              | 2017 | 6. Athira Ravi, Subha Vishnudas (2017). Policies and Strategies for Sustainable Solid Waste Management in   |



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|  | <p>Urban Residential Areas – A Case Study of Kochi City, Kerala, India, International Journal of Engineering and Technology (IJET), Vol 9 Issue 3, ISSN (Print) : 2319-8613, ISSN (Online) : 0975-4024, DOI: 10.21817/ijet/2017/v9i3/170903204, pp 1917-1924. (<i>Scopus Indexed</i>)</p> |
|  | <p>7. Athira Ravi, Subha Vishnudas(2017). Waste Footprint Model for Calculating the Waste Footprint of Urban Residential Areas, International Journal of Civil Engineering and Technology (IJCIET) Volume 8, Issue 5, ISSN Print: 0976-6308 pp. 14–21. (<i>Scopus Indexed</i>)</p>        |
|  | <p>8. Athira Ravi, Subha Vishnudas (2017). Conceptual framework for evaluating the sustainability of domestic organic waste management techniques. International Journal of Civil Engineering and Technology 8, 283-289. ISSN Online: 0976 -6316. . (<i>Scopus Indexed</i>)</p>           |
|  | <p>9. Athira Ravi, Subha Vishnudas, C E Ajith Kumar (2017). Waste Footprint of Kochi City, Kerala, India – A Statistical Analysis, Global journal for research analysis, Volume : 3 Issue : 11, ISSN No 2277 - 8179 , pp644-647</p>   |
|  | <p>10. Athira Ravi, Subha Vishnudas (2017). Sustainable options for reducing the waste footprint in urban residential areas, International Journal of Scientific and Research Publications, Vol 7, Issue 7, ISSN 2250-3153.</p>   |
|  | <p>11. Athira Ravi, Subha Vishnudas (2017). Biogas technology as a sustainable domestic organic waste management measure for developing countries, Civil Engineering and Urban Planning: An International Journal (<i>CiVEJ</i>), Vol.4, No.2, pp 79-90.</p>                              |
|  | <p>12. Lekshmi M S, Subha Vishnudas, Deepa G. Nair (2017). An investigation on the potential of mud as sustainable building material in the context of Kerala, Int. J. Energy Technology and Policy, Vol. 13, Nos.1/2, pp107-122. (<i>Scopus Indexed</i>)</p>                             |

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|------|---|
|      | 13.S Usha, Deepa GNair, SubhaVishnudas (2017). Study on Development of GeopolymerBinder from Terracotta, Roof Tile Waste by Experimental and Statistical Method, IOP Conf. Series: Materials Science and Engineering 225 012120, DOI:10.1088 /1757-899X/225/1/012120          |
|      | 14.S Usha, Deepa GNair, SubhaVishnudas (2017). Feasibility Study of geopolymer binder from terracota roof tile waste, Procedia Technology 25. pp 186-193. ( <i>Scopus Indexed</i> )   |
| 2016 | 15.Lekshmi M S, Subha Vishnudas, Deepa G. Nair (2016). Experimental study on the physical properties of mud mortar in comparison with the conventional mortars, Civil Engineering and Urban Planning: An International Journal ( <i>CiVEJ</i> ) Vol.3, No.2,pp127-135         |
| 2016 | 16. Meera C. M, Subha V (2016). Strength And Durability assessment of Bacteria Based Self-Healing Concrete, IOSR Journal of Mechanical and Civil Engineering, <i>e-ISSN: 2278-1684,p-ISSN: 2320-334X, PP 01-07</i>  |
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|      | 39. Jeerena Jawahar & Subha Vishnudas. Encapsulation of Mineral compounds as crack healing materials for cement based composites, ICSPACE 2020, India  |
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| <b>Chapter (International)</b>         | <b>2018</b> | 69. Subha Vishnudas, Anil K R, Hubert H G Savenije, Pieter Van der Zaag (2017). Use of Coir Geotextiles for Soil and Water Conservation for Crop Production – Case Studies from Kerala, South India, CRC publications, Apple Academic Press, New Jersey, USA (February 2018) <i>Hard ISBN: 9781771885928, E-Book ISBN: 9781315204307,</i> |
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|                                       | <b>2009</b> | 80. Deepa G Nair, Subha V. ( 2009). Sustainable Housing and Watershed management -The case of Kerala t: Edited by Dr. Manoj P K, In Emerging technologies and Financing Models for Affordable Housing in India, Directorate of Public relations and Publications, CUSAT, ISBN:978-93-80095-01-1   |

**Poster:** Subha Vishnudas ‘Rainbow of Water, 2023, DOI: [10.13140/RG.2.2.36803.58409](https://doi.org/10.13140/RG.2.2.36803.58409)

### **Short Term courses / Training Programme/conferences attended**

#### **A. International**

- Introduction to **Policy Analysis**, September- October, 2004 for 7 weeks, in Department of Policy and Management, **Delft University of Technology, The Netherlands.**

- Introduction to **Water Resources Management**, 10<sup>th</sup> October to 10<sup>th</sup> November 2003, **UNESCO-IHE, The Netherlands**.
- **Environmental Sanitation- Solutions & Management**, International water and sanitation centre, organized by SEUF-IRC, **The Netherlands, 2-12 July 2002**, Thiruvananthapuram, Kerala.

#### **B. Webinar – International**

- Environment and Emergencies in the face of COVID-19: What do you need to know in the Panademic Context, (UNEP) 29 July 2020
- Environment And Emergencies In The Face Of Covid-19:Environmental Coordination In Emergencies: Localization and Lockdown Challenges, (UNEP) 19 August 2020
- Negative Emissions Webinar Series (NEWS-2020),August 2020, TU DELFT, The Netherlands
- Technical Webinar on ‘Compressed Stabilized Earth Blocks for a Sustainable future’, The Institution of Engineers India, 19 September 2020
- Environment And Emergencies In The Face Of Covid-19:Environmental Coordination In Emergencies: Preparing and Responding to Chemical Risks: Re starting Industry, (UNEP) 14 October 2020
- Environment And Emergencies In The Face Of Covid-19 -Enhancing The Sustainability Of Humanitarian Action, (UNEP), 25 November 2020
- Environment And Emergencies In The Face Of Covid-19- What have we learnt from past emergencies and future outlook (UNEP) , 16 December 2020
- Waste Management during COVID-19: from crisis to opportunity, (UNEP), 22 December 2020
- Environmental Restoration and Circular Economy, Online seminar on 5 June 2021, International Society of Waste Management Air and Water,(ISWMAW), Centre for Sustainable Development and Resource Efficiency Management, Jadavpur University, India.

#### **C. Online Conferences- National/ International**

- National Conference On Advanced Modelling And Innovations in Water Resources Engineering, AMIWRE – 2021, organized by Department of Civil Engineering, National Institute of Technology Jamshedpur. 20 - 21 February 2021
- Virtual conference on Disaster Risk reduction- Civil Engineering for a Disaster Resilient Society, organised by International Water management Institute and National Institute of Technology, Karnataka 15-20 march 2021,
- Online International Conference IGBC’s Green Building Congress 2021, on Green Built Environment, Confederation of Indian Industry, IGBC, at CII HIVE,18-20 November 2021

- International Conference on Indo-US relations: Change Continuity and Transformations, organized by CPPR, Kochi and US consulate General in Chennai, 19-20 April 2022.

### C. National

| <b>Name of the Course/conferences</b>   | <b>Conducted By</b>  | <b>From</b> | <b>To</b>    | <b>No of Days</b> |
|---|--|-------------|--------------|-------------------|
| FDP program on Computational Advances in Water Resources Modelling  | Department of Civil Engineering, National Institute of Technology, Jamshedpur          | 21-06-2022  | 26-06-2022   | 6 days            |
| Online Training Programme On “Automation Of Canal With Modern Measurement Methods And Control Techniques” | Central Water and Power Research Station (CWPRS), Pune                                 | 24-05-2022  | 25-05-2022   | 2 days            |
| National Seminar on Disaster Resilient Infrastructure   | Department of Civil Engineering, National Institute of Technology Puducherry, Karaikal | 11 -03-2022 | 12 -03- 2022 | 2 days            |
| Online ATAL FDP on " Modelling of Water Resources Systems”  | Central University of Jharkhand  | 01/11/2021  | 05/11/2021   | 5 days            |
| Online ATAL FDP on "Stress Management: A Key for Personal & Professional Excellence"                      | Progressive Education Society's Modern College of Pharmacy,                            | 18-10-2021  | 22-10-2021   | 5 days            |

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|   | Pune  |             |             |        |
| Online training course on 'Ground water resource management'  | Central Ground Water Board, Kerala, Government of India | 28-07-2021  | 30-07-2021  | 3 days |
| Online Training Programme On "Automation Of Canal With Modern Measurement Methods And Control Techniques" | Central Water and Power Research Station (CWPRS), Pune  | 27-05-2021  | 28-05-2021  | 2 days |
| STTP (online) on Renewable Energy and Sustainable Development   | NIT, Uttarakhand  | 01-03-2021  | 05-03-2021  | 5 days |
| STTP (online) on Sustainable composites: processing, characterization and Applications                    | NIT, Uttarakhand  | 22-02-2021  | 26-02-2021  | 5 days |
| STTP (online) on Teaching Effectiveness in a Digital World: A behavioral Perspective                      | SOE, CUSAT  | 07-09-2020  | 08-09-2020  | 2 days |
| Online FDP 'Bridging the Gap: Theory and Practices in Pavement Engineering'                               | Saint Gits College of Engineering, Kottayam, Kerala     | 24-08-2020  | 28-08-2020  | 5 days |
| STTP on Recent Advances in Environmental Engineering and Management                                       | SOE, CUSAT  | 02 -03-2020 | 07-03- 2020 | 6 days |
| FDP on Robotics and Deep Learning Techniques  | SOE, CUSAT  | 24-02-2020  | 29-02-2020  | 6 days |

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| Sustainable Technologies for waste to Energy & waste to Wealth- Challenges and opportunities                         | SOE, CUSAT                 | 16-12-2019 | 16-12-2019  | 1 day  |
| Machine Learning For Engineering Applications  | IIT, Delhi                 | 09-12-2019 | 13-12-2019  | 5 days |
| Sustainable concrete pavement  | Indian concrete Institute  | 23-09-2019 | 23-09-2019  | 1 day  |
| America with Kerala: Uniting for a Disaster Resilient Kerala: Smart Cities Workshop: Sustainable Urban Development’. | CPPR& Consulate of America | 20-09-2019 | 20-09-2019  | 1day   |
| FDP on Artificial Intelligence and Soft Computing Techniques (Theory & Practice )                                    | SOE, CUSAT                 | 29-08-2019 | 31 -08-2019 | 3 days |
| Challenges of Kolkatha Metro Construction  | IGS Kochi CHAPTER          | 27-07-2019 | 27-07-2019  | 1 day  |
| America with Kerala: Uniting for a Disaster Resilient Kerala: Policy Planning and Infrastructure Development         | CPPR& Consulate of America | 23-07-2019 | 24-07-2019  | 2days  |

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|--|-------------------------------|------------|------------|--------|
| Workshop on Teaching Excellence  | SOE CUSAT                     | 05-07-2019 | 05-07-2019 | 1 day  |
| America with Kerala:<br>Uniting for a Disaster Resilient Kerala:<br>Curriculum on Disaster Management for Higher Education | CPPR&<br>Consulate of America | 24-06-2019 | 24-06-2019 | 1day   |
| International conference on Energy, Environment and Safety (ICEEMS'19) ,   | SOE, CUSAT                    | 25-04-2019 | 27-04-2019 | 2 days |
| STTP on Technology Enhanced Learning Environment   | SOE, CUSAT                    | 07-01-2019 | 11-01-2019 | 5 days |
| STTP on Green, Energy, Environment, Technology & Engineering for Sustainable future  | SOE, CUSAT                    | 10-12-2018 | 14-12-2018 | 5 days |
| Landslides: Analysis, Mitigation and Case studies  | SOE, CUSAT                    | 01-12-2018 | 01-12-2018 | 1day   |
| Housing Literacy for rebuilding of Kerala  | SOE, CUSAT                    | 16-11-2018 | 16-11-2018 | 1 day  |
| Mechanobiology- Exploring the Relevance of Engineering in Biological Systems   | SOE, CUSAT                    | 22-10-2018 | 26-10-2018 | 5 days |
| Short Term Training Programme on 'Outcome based Education- A gateway to NBA accreditation                                  | SOE, CUSAT                    | 12-02-2018 | 16-02-2018 | 5 days |
| Sustainable Construction, Environment& Climate   | SOE, CUSAT                    | 08-12-2017 | 08-12-2018 | 1 day  |



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|--|------------------------------|-------------|-----------------------------------|--------|
| Short Term Training Programme on 'Mathematical models in data mining process'      | SOE, CUSAT                   | 04-04-2016  | 08-04-2016                        | 5 days |
| Faculty Development Programme- Pedagogy  | IIT Madras                   | 27-07-2015  | 29-07- 2015                       | 3 days |
| Moodle- Open Source Learning management System                                     | SOE, CUSAT                   | 30-03-2015  | 30-03-2015                        | 1 day  |
| Management Development Programme on 'Communication Effectiveness lab for Managers' | IIM- Kozhikode, Kochi campus | 25-08-2014  | 27-08-2014                        | 3 days |
| GIS, GPS and remote sensing applications in Engineering                            | SOE, CUSAT                   | 4-11-2013   | 10-11-2013                        | 7 days |
| Advanced Engineering Materials and their Application                               | SOE, CUSAT                   | 21.01.2013  | 25.01.2013                        | 5 days |
| Energy Conservation Management   | SOE CUSAT                    | 5-11-2012   | 09- 11- 2012                      | 1 week |
| STTP on Sustainable Technologies in Engineering                                    | SOE, CUSAT                   | 18-03-2013  | 22 -03- 2013                      | 1 week |
| STTP on Advanced Engineering Materials and their Application                       | SOE, CUSAT                   | 21- 01-2013 | 25 -01- 2013                      | 1 week |
| STTP on Safety and Fire Protection in buildings                                    | SOE, CUSAT                   | 03 -12-2012 | 07 -12- 2012                      | 1 week |
| STTP on Energy Conservation & Management   | SOE, CUSAT                   | 05 -11-2012 | 0 9 -11- 2012                     | 1 week |
| Concrete Construction for Coastal Conditions- causes, concerns, & Challenges       | Kochi                        | 8Dec 2012   | Indian Concrete Institute Chennai | 1 day  |

|  |               |                          |                |         |
|--|---------------|--------------------------|----------------|---------|
| Green Construction for a Greener World   | Kochi         | 5Dec 2012                | Cochin Cements | 1 day   |
| Counsellor Development Workshop for Engineering College Teachers                           | GCT, Thrissur | 13-10-2012 & 14 -10 2012 | DTE, Kerala    | 2 days  |
| STTP on Safety Aspects in Engineering-Need and Practices                                   | SOE, CUSAT    | 28- 03-2011              | 08-04-2011     | 2 weeks |
| STTP on Modern Materials and Methods in Engineering  | SOE, CUSAT    | 02-05- 2011              | 14-05-2011     | 2 weeks |
| Participated in Seminar IGS, 2011, Kochi, Piling and Associated Problems                   | Kochi         | 07-05-2011               | IGS , Kochi    | 1 day   |
| Non- Destructive testing, welding Inspection and Quality Control & Site coating Inspection | SOE, CUSAT    | 04-05- 2011              | ISTE           | 1 day   |
| STTP on Modelling& Optimization Techniques in Engineering                                  | SOE, CUSAT    | 18- 10-2010              | 30-10- 2010    | 2 weeks |

### Research profile URL

Scopus : <https://www.scopus.com/authid/detail.uri?authorId=14063977000>

Google Scholar : <https://scholar.google.co.in/citations?user=OOBZAtoAAAAJ&hl=en>

Research Gate : [https://www.researchgate.net/profile/Subha\\_Vishnudas](https://www.researchgate.net/profile/Subha_Vishnudas)

LiveDNA : <https://livedna.org/91.16772>

### References

#### *International*

1. Prof. (Dr.) Huber H G Savenije, Delft University of Technology, The Netherlands
2. Prof. (Dr.) Pieter van Der Zaag , UNESCO – IHE, The Netherlands
3. Prof. (Dr.) Philip Vergragt, Clark University, USA.

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