



Shrikarpagam D
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M.S by Research | B.E Civil Engineering

Profile summary

- Internship experience of 7 months in design of earth building techniques and decentralised water management practices.
- Research & hands-on experience in structural design and optimization techniques.
- Published three full length papers in reputed conferences - two international and one national conference.
- Amateur blogger in the area of sustainable buildings.

Education

PhD, Ongoing

Indian Institute of Technology (IIT) Madras, Chennai.
Civil Engineering

M.S by Research, 2019

Indian Institute of Technology (IIT) Madras, Chennai.
Offshore Structural Engineering
CGPA: 8.00

B.E, 2013

Government College of Technology (Anna University), Coimbatore.
Civil Engineering
CGPA: 8.51

Research

Thesis title: Design optimization of offshore jacket structure based on fatigue life.

Thesis Advisor: Prof. S. K. Bhattacharyya

Contributions:

- An integrated framework is developed to perform automated structural optimization of offshore jacket structure to arrive at optimal dimensions of the structure based on fatigue and sizing constraints using PSO algorithm.
- The proposed framework is fully automated & achieved near-global optimal dimensions, quick convergence and significant weight and cost reduction of the structure.

Internship

RBDA Studios, Bengaluru

09 July, 2018 to 22 Feb, 2019

- Study of sustainable building materials & construction techniques.
- Study of decentralised water management & waste management practices.
- Design of a rammed earth building at Sungraze farms, Shoologiri.

Academic Achievements

- Recipient of monthly scholarship from the Ministry of Human Resource Development, Government of India for the period 2014 - 2017 (3 years) for pursuing M.S.
- Recipient of Indian central government annual scholarship during undergraduate studies from 2009-2013 (4 years) for topping higher secondary exams.



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Conference publications

- Shrikarpagam D, Bhattacharyya S K, "*Automated identification of fatigue critical tubular joints of an offshore jacket structure by deterministic fatigue analysis*" in The 36th International Conference on Ocean, Offshore and Arctic Engineering (OMAE-2017), June 25-30, 2017, Trondheim, Norway.
- Vishnu M, Shrikarpagam D, Bhattacharyya S K, "*Design Optimization of four legged offshore jacket structure considering fatigue damage*" in The 5th International Conference in Ship and Offshore Technology (ICSOT-2017), Dec 7-8, 2017, IIT Kharagpur, India.
- Shrikarpagam D, Vishnu M, Bhattacharyya S K, "*Towards optimal design of wind turbine support structures using evolutionary based algorithm*" in National Conference on Multidisciplinary Design Analysis and Optimization (NCMDAO-2018), March 23-24, 2018, Indian Institute of Science, Bengaluru, India.

Software skills and Programming

- SESAM, SACS, USFOS & FAST
- Programming in MATLAB
- STAAD.Pro, AutoCAD & SketchUp

Technical Blog

Passive Habitats

<https://passivehabitats.wordpress.com>

Intent: To convey technical content in the area of **Sustainable Buildings** in a language easily understandable and interesting for all the stakeholders.

Training & Workshop

- Mrinmayee Consultants, Workshop on Stabilized Mud Blocks, Adobe, Mudcrete - April 2018
- Wind Energy Technology, National Institute of Wind Energy, Chennai - Nov 2016
- G Ramamoorthy Constructions, Coimbatore - Dec 2011
- Tuticorin Port Trust, Tuticorin - Dec 2010

Work Experience

Tata Consultancy Services, Bengaluru

Assistant System Engineer, 05 Feb, 2014 to 04 July, 2014.

Undergraduate Project

Green retrofitting of existing buildings - Case studies in Coimbatore and retrofitting proposal for Dr. J. J. Rudra Block, Government College of Technology, Coimbatore under the guidance of Dr. R. Chithra.

Personal Details

Date of Birth : 22/12/1991

Languages known : English, Tamil, Hindi

Marital status: Married

Address : 1181/4, Vijayaragava Nagar, Jagir Ammapalayam, Salem-636005.

All the details given above are true to the best of my knowledge.

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