# SAKTHI SUBBIRAMANI T

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### **EDUCATIONAL QUALIFICATIONS**

Degree/Award	Institution	Board / University	CGPA / Percentage	Year of Graduation
Master of Science in	Indian Institute of	Indian Institute of		
Civil Engineering	Technology, Madras	Technology		
(M.S. Structural				
Engineering)				
Bachelor of	PSG Institute of	Anna University	8.67 CGPA	2022
Engineering (B.E. Civil	Technology & Applied		* At the end of the	
Engineering)	Research, Coimbatore		7 <sup>th</sup> semester	
Higher Secondary	Indu International	Central Board of	93%	2018
Certificate	School, Erode	Secondary Education		
Secondary School	Geethaanjali All India	Central Board of	10 CGPA	2016
Leaving Certificate	Senior Secondary School, Erode	Secondary Education		

# **TRAINING DETAILS**

# **National Highways Authority of India, Coimbatore**

Aug 2021 - Oct 2021

Site Engineer (Intern) - Paid

- Studied 20+ longitudinal profiles of the VUP and assisted in the design of superelevation, vertical curves, transition curves and flexible pavement abiding IRC 32 -2012
- Managed the construction work with BBS and mix design details of the crash barrier and median
- Carried traffic volume analysis and submitted a report on the level of service of the NH 544

## **Public Works Department, Madurai** (Implant – 1 week)

Dec 2019

- Worked on quality control and testing of construction materials
- Tested the strength parameters of the sample collected from inspection sites

# **PROJECTS**

**Design and parametric study of pile foundation considering Soil Structure Interaction effects** (Undergraduate Thesis)

Faculty Advisor: Prof. G.R. Dodagoudar, Ph.D. (IIT Madras) and Prof. S. Elayaraja (PSG ITAR)

Mar 2022 - Jun 2022

- Studied types of foundations models and Reese Matlock's generalized solution for the analysis of pile on elastic foundation using the finite difference method for solving the differential equations
- Developed a finite element model of foundation and carried out the analysis in PLAXIS 3D software
- Carried out parameter sensitivity study using different pile diameters, lengths and spacing between the piles in the pile group

# Software on analysis of 2D/3D truss

May 2021 - Present

Faculty Advisor: Prof. M. Arun, Ph.D. (PSG ITAR)

- On application of matrix method of structural analysis nptel course, started working on creating a spreadsheet on analysis of 2D/3D truss
- As an extension of spreadsheet, currently creating software using python and Tkinter as Graphical User Interface (GUI) where the deflection of joints, deformation of members and member forces in 2D/3D truss were calculated

### Planning, Analysis and Design of a theatre

Sept 2021 - Dec 2021

Faculty Advisor: Prof. M.I. Abdul Aleem, Ph.D. (PSG ITAR)

- Drafted a plan, elevation, detailed section, column and slab layout of the G+2 building with high roof cinema hall as per guidelines of Tamil Nadu Cinema Regulations, 1957
- Analysed the structural elements in the Staad Pro Connect Edition Software and verified with manual calculations for T-beams, column, slab and footing

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PUBLICATIONS Jan 2020 - June 2020

Faculty Advisor: Prof. D. Saranyadevi, Ph.D. (IIT Madras)

Ms. Saranyadevi D, Aakash R, Sakthi Subbiramani T, Sridhar S "Effect of Perlite in concrete – A State of Art –
 Review", Journal of Chengdu University of Technology (Science and Technology Edition) - SCOPUS INDEX

# **COURSES & CERTIFICATIONS**

# Graduate Aptitude Test in Engineering (GATE) - IIT Bombay and Kharagpur

Qualified GATE CE 2022 exam during the final year and secured a score of 678 with AIR 1252
 Feb 2022

Qualified GATE CE 2021 exam during 3rd year and secured a score of 375 with AIR 13316

Feb 2021

National Programme on Technology Enhanced Learning (NPTEL) - IIT Kharagpur

July 2020 - May 2022

- Awarded an "NPTEL Believer award" for the academic year 2020-21
- Completed a course with Elite Gold medal and AIR 1% on Geotechnical Engineering I with a score of 98%
- Completed a course with Elite Gold medal and AIR 2% on Foundation Engineering with a score of 93%
- Completed a course with Elite Silver medal on Matrix method of Structural Analysis with a score of 88%
- Completed a course with Elite Silver medal on Structural analysis with a score of 78%
- Completed a course with Elite certificate on Design of Reinforced concrete bridges with a score of 69%

## **Coursera - Georgia Institute of Technology**

April 2020 - May 2020

- Completed an online course on Mechanics of Materials (I, II, III, IV) with an overall score of 93%
- Completed an online course on Spreadsheets for Beginners using Google Sheets with a score of 85%

Qualified "Business English Communication - Vantage" exam conducted by Cambridge University

March 2020

# **SKILLS & INTERESTS**

### **Hard Skills:**

- Programming Languages: Python, C(Basics)
- Applications: MS Excel, MS PowerPoint
- Software: STAAD.Pro, STAAD.Foundation, AutoCAD 2D, Plaxis 3D

#### **Soft Skills:**

Problem Solving - Adaptability - Leadership - Self motivation

#### **Field of Interest:**

Structural Engineering

- Geotechnical Engineering

# **EXTRA-CURRICULAR ACTIVITIES**

- CLUBS:
  - Joint Secretary and member of Institution of Engineers (India) Student chapter in PSG ITAR
  - Active member & served as Executive member of the Youth Red Cross (YRC) Student chapter in PSG ITAR
  - Active member of American Concrete Institute (ACI) Student Chapter in PSG ITAR
- ROLES AND RESPONSIBILITIES:
  - Organized and conducted a Staad Pro Workshop in Yukta-21, a technical symposium in PSG ITAR Apr 2021
  - Served as a Student Representative and class commit member

May 2019 - Jan 2020

Organizer of Industrial Visit to Bangalore and Mysore

Jul 2019

# **WORKSHOPS AND SEMINARS**

- Indian Institute of Technology, Madras
  - Attended workshop on topic "Sustainability and Durability of Concrete Structures with by-products and recycled materials"

    Jan 2020
- National Institute of Technology
  - Attended workshop on "Semi Light Weight Concrete and Forensic Analysis of Soil" at NIT Trichy Oct 2019
  - Attended online seminar on "Micro- Characterization of Concrete" conducted by NIT Mangalore Sep 2020

# **HOBBIES**

- Involving in research about Indian Politics

- Playing chess