

# Dr. Zoya Fathima



B.E (Civil), M.Tech (Structural Engineering), PhD (Structures)  
Google Certified Educator - Level 1 and Level 2

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HRG Enclave, Tilak Nagar, Cantonment, Ballari.

## Professional profile

I am currently working as an Associate Professor in the Civil Engineering Department of BGS College of Engineering and Technology. I have 12 years of overall teaching experience out of which 10 years are at the level of Lecturer and Assistant professor at different Diploma/engineering colleges. I have also been a trainer for 6 years now training GATE/ESE/AE and AEE Exams aspirants.

I believe teaching is not a profession, it's rather a passion and I am very passionate about it. Hence I would always like to have a career which provides assistance in imparting education as well as shaping young minds.

## Educational profile

I am a PhD graduate in the field of Structural Health Monitoring, Gold medalist in M.Tech Structures and 13th rank holder in B.E Civil Engineering. I also secured Rank 29 in Karnataka PG CET-Civil.

## Academic Background

2014 - 2020	<b>Dr. Ambedkar Institute of Technology, Bangalore.</b> Visvesvaraya Technological University (VTU), Belgaum.	<b>Completed</b>
2010 - 2012	<b>Dayananda Sagar College of Engineering, Bangalore.</b> Visvesvaraya Technological University (VTU), Belgaum.	<b>85%</b>
2006 - 2010	<b>Vijayanagar Engineering College, Bellary.</b> Visvesvaraya Technological University (VTU), Belgaum.	<b>82%</b>
2004 - 2006	<b>Vasavi Composite PU College, Bellary.</b> Karnataka PUC Board.	<b>74%</b>
2004	<b>Kittur Rani Chennamma Girls High School, Bellary.</b> Karnataka SSLC Board.	<b>84%</b>

## Achievements

- **Gold medalist** and a **1st Rank Holder** in **M.Tech, Structural Engineering**, Visvesvaraya Technological University.
- **13th Rank** Holder in **B.E, Civil Engineering**, Visvesvaraya Technological University.
- **Rank 29** in Karnataka - **PGCET-Civil**.
- Have got **Academic excellence awards** in B.E and M.Tech, Civil Engineering during all the years of study.
- Have received **Certificate of Merit** by **UltraTech Cement Ltd.**, twice for securing highest Marks in Material of Construction and Concrete Technology.
- Have received many **prizes** at Inter and Intra College levels both under Technical and Cultural categories.

## Professional experience (Engineering Colleges)

Sept 2022-Till date

**ASSOCIATE PROFESSOR** | *Civil Engineering Department*  
*BGS College of Engineering and Technology, Bengaluru.*

- Subjects Handled:

*For B.Tech:* Innovative Design Thinking - IDT & Professional writing skills in English.

- Additional Roles:

1. **Coordinator - Internship.**
2. **1 Credit courses Overall Incharge.**
3. **Member of Estate managing committee.**

Oct 2018-Oct 2021

**LECTURER** | *Civil Engineering Department*  
*Ballari Rural Polytechnic College, Kolur - Ballari Dist.*

- Subjects Handled:

*For Diploma:* Strength of Materials, Structural Engineering, Surveying, Building Materials, Transportation Engineering and Estimation and costing.

- Laboratorys Handled:

*For B.Tech:* Strength of Materials, Surveying Lab and STAAD-Pro.

- Additional Roles: **Coordinator for all activities in the department.**

Sep 2016-Mar 2018

**ASSISTANT PROFESSOR** | *Civil Engineering Department*  
*Vidya Jyothi Institute of Technology (Autonomous), Hyderabad.*

- Subjects Handled:

*For B.Tech:* Engineering Mechanics 1 & 2, Strength of Materials, Structural Analysis 1 & 2 and Finite Element Methods (Elective).

*For M.tech:* Matrix Methods, Theory of Elasticity and Plasticity and Optimization Techniques.

- Laboratorys Handled:

*For B.Tech:* Strength of Materials (SOM Lab) and Surveying Lab.

- Projects Guided:

*For M.Tech:* 1. Damage Detection in beam like structure using Fuzzy Logic.  
2. Detection of Multiple Cracks using Wavelet Analysis.

- Additional Roles:

1. **Overall Coordinator for M.Tech (Structural Engineering).**
2. **Coordinator for 1st year Civil Engineering Students.**
3. **Responsible for setting up a NEW Strength of Materials Lab for the Civil Engineering Department.**
4. **Paper setter and scrutinizer for External Theory Exams (Civil Engineering Department).**

May 2014-Nov 2015

**ASSISTANT PROFESSOR** | *Civil Engineering Department*  
*Vasavi College of Engineering (Autonomous), Hyderabad.*

- Subjects Handled:

*For B.Tech:* Engineering Mechanics 1 & 2, Mechanics of Materials and Fluid Mechanics.

- Laboratorys Handled:

*For B.Tech:* Mechanics of Materials (MOM Lab), Surveying Lab, CACED Lab (Computer aided civil engineering drawing) and Revit Architecture Software (Finishing School Technical).

- Projects Guided:  
For B.Tech: 1.Damage Detection in a beam using Wavelet Analysis.
- **Additional Roles:**
  1. **Coordinator - Extracurricular and Cocurricular activities.**
  2. **Coordinator - Industry-Institute Interaction.**
  3. **Strength of Materials Lab Incharge/Coordinator.**
  4. **Board of studies member (BOS-Internal).**
  5. **NBA and SAR works Member.**

Jul 2012- May 2014

**LECTURER** | *Construction Technology and Management Department*  
*Dayananda Sagar College of Engineering, Bangalore.*

- Subjects Handled:  
For B.Tech: Elements of civil engineering, Strength of Materials, Structural Analysis and Estimation and costing.
- Laboratorys Handled:  
For B.Tech: Surveying Lab
- Projects Guided:  
For B.Tech: 1.Design of a residential apartment using STAAD.  
2.Estimation and costing of a commercial complex.
- **Additional Roles: Coordinator for conducting workshops and seminars.**

May 2010-May 2012

**LECTURER** | *(Part Time)*  
*Civil Engineering Department, SVIT Polytechnic College, Bangalore.*

- Subjects Handled:  
For Diploma: Strength of Materials, Surveying, Building Materials, Transportation Engineering and Estimation and costing.
- Laboratorys Handled:  
For B.Tech: Strength of Materials and Surveying Lab

## Professional experience (Freelancer)

June 2020- Till Date

**Subject Matter Expert (SME) | GATE Doubt Solving Educator (YouTube-Live)**  
*Ekeeda Private Limited, Mumbai.*

- Responsibilities:
  - To record complete subject lesson videos, make notes, quiz questions and clear doubts regarding the subject
  - To conduct GATE doubt solving sessions on youtube - live streaming.

Subject:

(GATE) Engineering Mechanics, Strength/Mechanics of materials, Structural analysis, CMM, Transportation Engineering, Hydrology/Irrigation and Surveying.

(SME) Advanced Structural Analysis (ASA), Transportation Engineering (TE) and Building Materials.

Do follow the link to find the videos:

Subject Matter Expert (SME)

<https://ekeeda.com/degree-courses/civil-engineering/advanced-structural-analysis> - ASA

<https://ekeeda.com/degree-courses/civil-engineering/transportation-engineering-2> - TE

GATE Doubt Solving Educator (YouTube-Live)

<https://www.youtube.com/watch?v=XzvRKIZTfAw&t=4232s>

<https://www.youtube.com/watch?v=FciIYN8IWJY&t=47s>

Nov 2021-Dec2021

**GATE Tutor | Civil dept (Online)**  
**MVS Academy - GATE coaching Institute, Hyderabad.**

- Responsibilities:
  - To conduct GATE Classes (Batchwise).  
Subject: Construction Materials & Management, Strength of Materials.

Mar 2021-Jul 2021

**GATE and ESE - Educator | (Unacademy - App Live) | (YouTube-Live)**  
**UNACADEMY, Bangalore.**

- Responsibilities:
  - To conduct Live GATE and ESE Classes on the unacademy app and unacademy youtube channel.

UnacademyAppClass Links pdf: [Unacademy Class Links.pdf](#)

Youtube class Links:

1. [Shear Stresses in Beams - Dr. Zoya Fathima - YouTube](#)
2. [Revision Sessions for Surveying/Geomatics Engineering | Dr. Zoya Fathima - YouTube](#)

Jan 2016-May 2019

**GATE Tutor | Civil dept (Offline)**  
**Vishwa GATE coaching Institute, Hyderabad.**

- Responsibilities:
  - To conduct GATE Classes (Batchwise).  
Subject: Engineering Mechanics, Strength/Mechanics of materials, Structural analysis, CMM and Surveying.

## Projects Carried out

- **B.E:** Analysis and Design of Commercial Complex Using STAAD.PRO.
- **M.Tech:** Damage Assessment of Structures using Analytical and Experimental Techniques.  
(Got UGC Research Grant of Rs. 7000/- )
- **Ph.D: Thesis Title:** "**Damage Detection in Structures using Vibration based Damage Detection Techniques**".  
(Wavelet Transforms, Fuzzy Logic and Artificial Neural Network)

*This research is very significant because the outcomes mainly contribute towards the safe and efficient performance of the structure and it also results in reducing loss of lives and properties when subjected to long term deterioration under service load. The type of damage considered here is a crack. This research has a direct impact on developing an efficient damage detection technique, especially for a structural element like a beam using fuzzy logic, artificial neural network and wavelet analysis. The outcome of the present study contributes towards the structural safety of buildings and prevents unexpected structural failures at the earliest possible stage and establishes an online continuous health monitoring system of structures.*

**Thesis pdf link:**  [ThesisReport-B.PrakruthiGowd-1DA13PCN01.pdf](#)

**Final Viva Video:** [1Phd-Viva.mkv](#)

### **Guide:**

**Dr. Manjunatha N. Hegde.** [Manjunatha N Hegde - Academia.edu](#)  
Retired Professor(Formar Dear Academic), Civil Engineering Dept, Dr AIT, Bangalore.  
Ph.D. IISc Bangalore, India  
31 years of teaching/research experience.

### **Final Viva Examiner:**

**Raghukanth S. T. G.** <https://civil.iitm.ac.in/faculty/raghukanth/>  
Professor, Structural Engineering, IIT, Madras.  
Ph.D. IISc Bangalore, India  
Broad areas of Interest: Seismology, Wave Propagation, Earthquake Engineering

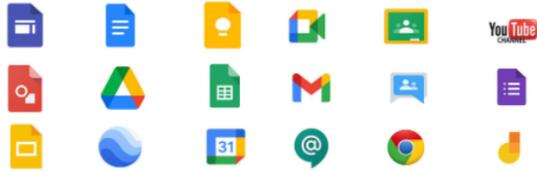
### **Compressive Viva Examiner:**

**Katta Venkataramana.** <https://civil.nitk.ac.in/faculty/kattavenkataramana>

## Technical Skills

- **Google Certified Educator - Level 1 and Level 2**

- Expertise in all the below google tools (Fundamental and Advanced)



- **Civil Software Expertise:**

Certified in all the below courses from CADD centre:

- Diploma in Civil CADD (**AutoCAD, STAAD.Pro**)
- Diploma in PPM using MSP (**MS Office Project**)
- **Revit Architecture**
- **Primavera 6.0**
- **Ansys**

- **Current trainings (Under Process):**

Presently undergoing training in the below Certified courses from SWAYAM webportal:

1. **Design, Technology and Innovation** By Prof. B K Chakravarthy, IIT Bombay (**AICTE approved FDP Course**).
2. **Innovation by Design** By Prof. B K Chakravarthy, IIT Bombay (**AICTE approved FDP Course**).
3. **Introduction to Machine Learning** By Prof. Balaraman Ravindran, IIT Madras (**For my future research**) (**AICTE approved FDP Course**).
4. **Programming in Python** By Dr. Rizwan Rehman, Dibrugarh University (**For my future research**).
5. **Designing Learner Centric MOOCs** By Prof. Sameer Sahasrabudhe, Prof. Sahana Murthy, Prof. Jayakrishnan M, IIT Bombay (**AICTE approved FDP Course**) (**For Interest in online teaching**).

## Journal Papers Publications

- Zoya Fathima (B Prakruthi Gowd), Divya Vani B, Dr. Manjunath N Hegde **“Application of Artificial Neural Networks for developing a crack detection algorithm”** **International Journal of Civil and Structural Engineering – IJCSE** 2018, Copyright © Institute of Research Engineers and Doctors, SEEK Digital Library, Volume 5: Issue 1, 25 June, 2018, Page no. 176-179, [ISSN: 2372-3971]. [http://journals.theired.org/assets/pdf/20180915\\_095722.pdf](http://journals.theired.org/assets/pdf/20180915_095722.pdf)
- Divya Vani B, Zoya Fathima (B Prakruthi Gowd) and Dr. Manjunath N Hegde **“Detection of damage in a beam like structure using Wavelet Analysis”** **International Journal of Civil and Structural Engineering – IJCSE** 2018, Copyright © Institute of Research Engineers and Doctors, SEEK Digital Library, Volume 5: Issue 1, 25 June, 2018, Page no. 180-183, [ISSN: 2372-3971]. [http://journals.theired.org/assets/pdf/20180915\\_100407.pdf](http://journals.theired.org/assets/pdf/20180915_100407.pdf)
- Zoya Fathima (B Prakruthi Gowd), K Jayasree and Manjunath N. Hegde **“Comparison of Artificial Neural Networks and Fuzzy Logic Approaches for Crack Detection in a Beam Like Structure”** **International Journal of Artificial Intelligence and Applications (IJAIA)**, Vol.9, No.1, January 2018, Page no. 35-51.

## Papers presented - Conferences

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### International Conferences

- Zoya Fathima (B Prakruthi Gowd), Divya Vani B, Dr. Manjunath N Hegde **“Application of Artificial Neural Networks for developing a crack detection algorithm”** *Proc. of Seventh International Conference On Advances in Civil, Structural and Mechanical Engineering –ACSM 2017*, 24th - 25th September, Bangkok, Thailand. ISBN: 978-1-63248-135-1.  
<https://doi.org/10.15224/978-1-63248-135-1-41>
- Divya Vani B, Zoya Fathima (B Prakruthi Gowd) and Dr. Manjunath N Hegde **“Detection of damage in a beam like structure using Wavelet Analysis”** *Proc. of Seventh International Conference On Advances in Civil, Structural and Mechanical Engineering - ACSM 2017*. 24th - 25th September, Bangkok, Thailand. ISBN: 978-1-63248-135-1.  
<https://doi.org/10.15224/978-1-63248-135-1-42>

### National Conferences

- **“An Overview of Active Learning Techniques”**, in *Fourth International conference on Transformation in Engineering Education (ICTIEE-2017)*, in association with Indo-Universal Collaboration for Engineering Education at Vardhaman College of Engineering, Hyderabad, India, held on 6,7 - 8 January 2017.
- **“Experimental and Analytical Techniques for the Structural Damage Detection”**, in International Conference on *Recent Trends in Engineering and Technology – 2013 (ICRTET-2013)*, Kodaikanal, India, held on March 15-16 March 2013.
- **“Damage Assessment of Structures Using Experimental and Analytical Techniques”**, in the Proceedings of the *Regional Conference of the International Network of Women Engineers & Scientists (INWES) Organized by - Women in Science & Engineering (WISE) INDIA in association with INWES*, New Delhi, India, held on 12-13 October 2012.
- **“An Overview of Structural Health Monitoring”**, in National conference on **“Recent Trends in Structural Engineering”** Organized by the Department of Civil Engineering, VNRVJiet, Hyderabad, India, held on 6-7 January 2012.

### Workshops Conducted

- Conducted a Faculty Development Program on **Google Classroom – A hands on workshop** as a (Resource Person) at **BGS College of Engineering and Technology, Bangalore** on 11th October 2022.

### Workshops Attended

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- One Week National Level Online Faculty Development Programme On **“Societal Applications of Machine Learning”** organised by the Department of Computer Science & Engineering, **SHRI VISHNU ENGINEERING COLLEGE FOR WOMEN (Autonomous)**, W. G. District, AP, India on 26th – 30th December 2022
- 5-day Online **FDP** on the theme **“Inculcating Universal Human Values in Technical Education”** organized by **All India Council for Technical Education (AICTE), New Delhi**, from 14th November to 18th November 2022.
- 3 Days online National Level Seminar sponsored by NAAC on **“Effective implementation of National Education Policy”** organised by **Sairam College of engineering, Anekal, Bangalore**, from 10th - 12th November 2022.

- Attended a 9 day **Faculty Induction Program** organised by **BGS College of Engineering and Technology** from 2nd to 9th November 2022.
- Completed a **Certification Course on Basic of IPR** via a Virtual mode organised by **Turnip Innovations Pvt Ltd** during 12th – 20th October 2022.
- Seminar on **Making Students IT industry ready by seeding industry Knowledge in academia** organised by **BGS College of Engineering and Technology, Bangalore** on 11th October 2022.
- Attended a Three days online **International Conference on Higher Education, Research and Innovation** during 28th July - 30th July 2022, organised by **S&T Digital (Science and Technology)**.
- Five-days First National Workshop on **Advancements in Structural Health Assessments (ASHA)** workshop held during 30th May - 3rd June 2022, organised by **Center for Sustainable Infrastructure & Systems (CSIS) at Mahindra University, Ecole Centrale School of Engineering**, Hyderabad, Telangana, India.
- Two-day National Workshop on **Computer Applications in Civil Engineering** held during October 21st and 22nd, 2016 organized by the **Department of Civil Engineering, Vasavi College of Engineering (Autonomous)**, Hyderabad, Telangana, India.
- Workshop on **Design of Experiments and Statistical Modelling** held during January 5th to 9th, 2015 organized by SQC and OR Unit, **Indian Statistical Institute**, Hyderabad, Telangana, India.
- Workshop on **Research Methodology** held during April 3rd and 4th, 2015 organized by Centre of Excellence in Water Resources Management, Department of Civil Engineering, **BITS Pilani**, Hyderabad Campus, Telangana, India.

## Reference

### 1. Dr. Manjunatha N. Hegde.

Retired Professor (Formar Dear Academic), Civil Engineering Dept, Dr AIT, Bangalore.

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### 2. Dr. Aarchana Dongre.

Professor (Tenure), Structural Engineering Dept, Veermata Jijabai Technological Institute, Matunga, Mumbai.

☎ +91- 9291500000    ✉ [adongre@st.vjti.ac.in](mailto:adongre@st.vjti.ac.in)

### 3. Dr Kuchu Jayashree.

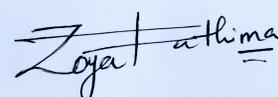
Assistant Professor, Civil Engineering Department, Vasavi College of Engineering, Hyderabad.

☎ +91- 9291500000    ✉ [kuchu.jayasree@gmail.com](mailto:kuchu.jayasree@gmail.com)

## Personal Details

Date of Birth:	16 May 1988.
Linguistic proficiency:	English, Hindi, Kannada and Telugu.
Marital Status:	Married.
No. of Childrens:	1

I hereby declare that the information provided above is true to the best of my knowledge.



**Dr. Zoya Fathima**