

# Balaji K

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4, Kannan Avenue Main Road, Old Perungalathur, Chennai- 63

## Experience

DESIGN ENGINEER – TRAINEE (2 Years)		From June 2019
Makeorbuy contracting Pvt. Ltd., Bangalore. (Geodesic Techniques Pvt. Ltd. Group)		
Enquiries		
Coco Cola Manufacturing Plant, Hyderabad.	Design of roof (Area = 34000 SQM) in 3 different configurations – (i) Space frame, (ii) Truss and (iii) Primary and Secondary Beams as per IS codes.	
RIL PV Manufacturing Shed, Jamnagar.	Designed the roof truss of area 21000 SQM.	
GCC Club, Mumbai. (G+7)	Steel design – Beams, Columns and braces as per IS codes.	
Data Centre, Pune. (G+3)	Design of Steel Beams and braces as per IS codes.	
Kensri School, Bangalore.	Designed the sports complex floor and roof using Truss.	
Panchshil, Pune. (G+12)	Design of Steel Beams and CFT Columns.	
M-FAR, Pune. (G+14)	Controlling Modal behaviour and story drifts as per IS codes.	
Projects		
Phoenix – Equinox, Hyderabad. (B2+G+30)	Developed AutoCAD script file to automate the generation of fabrication drawings. Developed my leadership skill by heading a team of 7 detailers and delivered the fabrication drawings much before the deadline by proper planning and motivation, under pressure. Carried out checking of fabrication drawings of beams, columns and shear walls.	
Phoenix – 285 T6, Hyderabad. (G+17)	Connection design – Design of shear tab as per IS codes.	
R&D		
Composite Beam Development	Worked as a part of Research and Development team for developing a new economical and low depth composite beam section. Learnt the design of composite beams and the impact of each element in design aspect. Studied the basis in which moment – load interaction curves are formed in SP-16, as a part of composite beam development.	
Precast Slab system	Worked as a part of R&D team in developing precast slab for achieving formwork free floor plate system.	
Internship		
Chennai Metro Rail Ltd.	Studied the Structural and Architectural drawings of metro stations. The design and detailing of beams of metro stations are studied.	

## Academic Profile

<b>COURSE</b>	<b>INSTITUTION</b>	<b>YEAR OF PASSING</b>	<b>PERCENTAGE</b>
M.E. - Structural Engineering	MEPCO Sclenk Engineering College, Sivakasi.	2019	89
B.E. – Civil Engineering	Sri Sairam Engineering College, Chennai.	2017	84.6
Higher Secondary	S.R.G.D.S. Matriculation Higher Secondary School, Thiruvannamalai.	2013	92.9
Secondary	S.R.G.D.S. Matriculation Higher Secondary School, Thiruvannamalai.	2011	94.2

## Accomplishment

- Completed the courses “**The comprehensive ETABS professional course (RCC and Steel)**” and “**Structural Steel design of Pipe racks**” in UDEMY.
- Completed the IIT madras certification course on **PYTHON**.
- Won **Best Paper award** for paper on “Thermal and acoustic performance evaluation of bricks incorporating sewage treatment plant sludge” in International Conference on Innovations in Engineering, Science and Technology 2019 (ICEST 2019).

## Software Skills

- Analysis & Design – Etabs and Staad Pro.
- Modelling & Drafting – AutoCAD
- MS Excel
- Cad Script
- Python - Basics

## Areas of Interest

- Structural Analysis.
- Steel Structures Design.
- Automation.

## Publications

- A journal on “Development of brick as a Thermal and acoustic resistant building component” in International Journal of Engineering Research and Applications (IJERA).
- A journal on “Experimental study of removal of Fluoride in water using Bio-Material” in International Research Journal of Engineering and Technology (IRJET)

## Project Details

- **Design of Pedestrian subway using Box Culvert.**  
Manual Design of pedestrian subway using Moment distribution method.
- **Experimental study of removal of Fluoride in water using Bio-Material**  
Studied the side effects of presence of fluoride in drinking water and designed the low-cost fluoride filter by performing pilot studies and experimental studies.
- **Development of brick as a Thermal and Acoustic resistant building component**  
Enhanced the thermal and acoustic property of bricks by incorporating waste materials. The thermal behaviour was compared with ANSYS analytical results and Acoustic behaviour was compared with ABAQUS analytical results.

## Languages

Tamil	Native Proficiency
English	Professional working proficiency
Telugu	Limited Proficiency

## References

- Haridoss B,  
Design Engineer,  
Geodesic techniques pvt. ltd.  
Contact No.: 9750423653.
- Naveen B,  
Design Engineer,  
Makeorbuy Contracting pvt. ltd.  
Contact No.: 8903043535.