

NAME : SUNDARARAMAN K.

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Gender : Male

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COA registration Number : CA/2006/39097

Nationality : Indian

**QUALIFICATIONS** : B.Arch, MS (IIT Madras), IGBC AP,  
**Currently Doctoral Research Scholar (IIT Madras)**

#### **MEMBERSHIPS**

Council of Architecture	: COA
International Association for Automation and Robotics in Construction	: IAARC
The Robotic Society (India)	: TRS
Indian Green Building Council Accredited Professional	: IGBC AP
Indian Institute of Architects	: IIA
Institute of Indian Interior Designers	: IIID

#### **AREA OF INTERESTS in Architecture and Construction Engineering:**

Data Science and Machine learning, Automation in Construction, Lean Construction, Sustainability, Architecture, Semantics

#### **BRIEF BACKGROUND**

2001-2005	: B.Arch at Thiagarajar College of Engineering, (Madurai Kamaraj University)
2005-2008	: MS at IIT Madras specializing in Building Science
2008-2010	: L&T ECC, Chennai: Building Envelopes & Green Building Initiatives
Aug 2010- till date	: founded Vyomsaroop Architects, Chennai providing design consultancy
Feb 2014- till date	: Faculty at Rajalakshmi School of Architecture, Chennai; presently Associate Professor.
Jan 2015- till date	: Doctoral Research Scholar, BTCM, DCE, IITM

## PROFESSIONAL EXPERIENCE

### 1. VYOMSAROOP ARCHITECTS & INTERIOR DESIGNERS

Founding **vyomSaroop\***, Architects & Interior Designers in Chennai doing projects in various categories.

\*(In Sanskrit - "vyom" means space, "roop" means form, "sa" means order. Thus, vyomsaroop means Form, Space & Order). We offer end-to-end building solutions to clients. Our approach: "consistent and systematic assessment, design and implementation".

PROJECTS TYPOLOGY: Residential; Commercial; Institutional

### 2. L&T ECC

Contributed as Senior Design Engineer at L&T ECC, Chennai.

Some milestones are as follows:

- *Building Envelope Specialization Development* in EDRC; involvement in Project Estancia, Chennai.
- Core member: *Green Building Team* involving Green Building Consultancy for projects.
- Architect associated with Muscat and Salalah *International Airport projects*.
- Offered *Green Building Training Program* for In-house staff.

## PLACES VISITED ABROAD:

### In 2009

Shanghai, (China)

Shenyang, (China)

Beijing (China);

Dubai, (United Arab Emirates)

Abu Dhabi (United Arab Emirates):

As representative of L&T- ECC, EDRC, *visited the above places to assess the Façade Manufacturing Suppliers* for India Tower Project (Proposed India's tallest building), Mumbai.

### In 2018

Berlin (Germany):

International Conference Paper Presentation:

Krishnamoorthi, S., and Raphael, B., A methodology for analysing productivity in automated modular construction. 35<sup>th</sup> International Symposium on Automation and Robotics in Construction, ISARC 2018.

## FEW PROJECTS and CONSULTANCY WORKS

1. Koothambalam Auditorium, Kalakshetra, Chennai, Tamil Nadu, India.
2. Developments in Sri Ramakrishna Mutt, Mylapore, Chennai, Tamil Nadu, India.
3. Sri Sathya Sai Arogya Nilayam, Madurai, Tamil Nadu, India.
4. Quark at IIT Madras, Chennai, Tamil Nadu, India.
5. Transportation Division, DCE, IIT Madras, Chennai, Tamil Nadu, India.
6. Sri Ramakrishna Ashrama, Kanpur, Uttar Pradesh, India.

## **TEACHING EXPERIENCE**

2005-2008: HTRA at Indian Institute of Technology Madras, Chennai, Tamil Nadu, India; during MS.

2012-2013: Visiting Faculty at School of Architecture and Planning, Anna University, Chennai, Tamilnadu, India.

2013-2014: Faculty for M.Arch program at School of Architecture, Sathyabama University, Chennai, Tamilnadu, India.

2014-till date: Faculty at Rajalakshmi School of Architecture, Chennai, Tamilnadu, India.

## **DELIVERED GUEST LECTURES AT:**

Indian Institute of Technology Madras, Chennai, Tamilnadu, India.

SRM University, Chennai, Tamilnadu, India.

JPR College of Engineering, Chennai, Tamilnadu, India.

MSAJ School of Architecture, Chennai, Tamilnadu, India.

School of Architecture and Planning, Anna University, Chennai, Tamilnadu, India.

School of Architecture, Sathyabama University, Chennai, Tamilnadu, India.

School of Architecture, Bharath University, Chennai, Tamilnadu, India.

School of Architecture, Hindustan University, Chennai, Tamilnadu, India.

School of Architecture, Meenakshi College, Chennai, Tamilnadu, India.

School of Architecture, Karpagam University, Coimbatore, Tamilnadu, India.

RVS School of Architecture, Coimbatore, Tamilnadu, India.

School of Architecture, Excel College, Namakkal, Tamilnadu, India.

Meenakshi College of Engineering, Kodambakkam, Chennai, Tamilnadu, India.

## **THESIS GUIDE (INTERNAL)**

2014-till date: Faculty at Rajalakshmi School of Architecture, Chennai, Tamilnadu, India.

Guided students to achieve among top performers of their batch in thesis. Some of them are placed in IIT, SPA and other prestigious institutions.

## **THESIS GUIDE (EXTERNAL)**

School of Architecture, Excel College, Namakkal, Tamilnadu, India.

## **THESIS AND DESIGN EXAMINER (EXTERNAL)**

School of Architecture and Planning, Anna University, Chennai, Tamilnadu, India.

MSAJ School of Architecture, Chennai, Tamilnadu, India.

School of Architecture, Bharath University, Chennai, Tamilnadu, India.

School of Architecture, Hindustan University, Chennai, Tamilnadu, India.

## **INTERNATIONAL SCIENTIFIC COMMITTEE:**

Member of International Scientific Committee: International Conference on Advance Building Sciences 2013, (13-16 Feb 2013) at IIT Madras.

## EDUCATIONAL QUALIFICATIONS

Degree & Branch	Institute / University	% / CGPA
PhD (Pursuing)	Indian Institute of Technology Madras, Chennai	8.25
MS	Indian Institute of Technology Madras, Chennai	8.19
B.Arch	Thiyagarajar College of Engineering, Madurai	70% (Best outgoing student award)
Higher Secondary School	Mahatma Montessori Matriculation Higher Secondary School, Madurai	91.4% (Best outgoing student award)
High School	Kendriya Vidyalaya, Madurai	81.6%

## DOCTORAL RESEARCH AREA (On-Going)

A Theoretical Framework to assess Project Performance through Construction Automation

### Abstract:

Automation in construction industry has generated significant interest in the recent times. In many Asian countries, there is significant housing demand for addressing the growing population. Automated modular construction can potentially address this challenge by improving productivity through savings in time and cost. Even though it is generally understood that automated construction can reduce time and cost of projects, not enough research is done in the area of quantitative methods to evaluate productivity improvements through automation in construction. The general aim of this study is to develop a generic methodology for analysing productivity of any given automation system for construction. More specifically, our present focus is on using simulation tools such as Extendsim in combination with site measurements or laboratory experiments for predicting productivity parameters of different possible processes for a task.

## M.S. THESIS

**Title: studies on indoor environmental comfort in hospital buildings in warm humid climate**

The aim of this research work is to study the nature of indoor climate in hospital buildings and the comfort aspects with respect to thermal, acoustics and lighting. Multi-specialty hospitals in the city of Chennai are experimented in this regard. The variation of the thermal characteristics is analyzed in different zones of hospital with distinct levels of criticality. A study is undertaken to understand the impact of thermal parameters like PMV and PPD on the occupants with respect to their comfort sensation. The acoustic study is done as a sound mapping exercise to define the contours of acoustic levels inside the hospital environment. The lighting is studied in terms of the activity based levels and user comfort is analyzed with respect to doctors, patients, nurses and staff.

## B.ARCH THESIS

**Title: HITEX: Exhibition Pavillions, Hyderabad- Experimenting Long-Span Structures**

The Thesis involves study and application of long-span structures, materials and technology. An attempt was made to design exhibition pavilions for HITEX (Hyderabad International Trade Expositions) using innovative structures and models. The design models were done keeping in mind the international significance of the pavilion since HITEX would act as an Iconic structural marvel.