CURRICULUM VITAE

Lakshmi Prabha Edappilly

Department of Civil Engineering Indian Institute of Technology Madras Chennai, India

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Education

Master of Science Indian Institute of Technology Madras, Chennai, India

(by research) Civil Engineering, Expected May 2020

CGPA: **9.72/10** (Department Rank 1)

B. Arch. National Institute of Technology Calicut, Calicut, India

CGPA: **8.45/10** 2012 – 2017

(University Rank 1)

Academic and Research Accomplishments

My goal is to become a skilled researcher in the field of building sciences and indoor comfort. My research interests include different aspects of built environment like thermal comfort, passive ventilation, occupant centric design, and lighting.

CONFERENCE AND JOURNAL PUBLICATIONS

- Schweiker, M., Abdul-Zahra, A., de Andre, M. A., Al-Atrash, F., [et.al, including Edappilly, L. P.] (2020). "The Scales Project: a cross-national dataset on the interpretation of thermal perception scales", Scientific Data (Springer Nature) 6, 289 doi:10.1038/s41597-019-0272-6.
- 2. Schweiker, M., André, M., Al-Atrash, F., Al-Khatri, H., [et.al, including **Edappilly, L. P.**] (2019). "Evaluating Assumptions of Scales for Subjective Assessment of Thermal Environments Do Laypersons Perceive Them the Way, We Researchers Believe?" *Energy and Buildings*, January, 109761. https://doi.org/10.1016/j.enbuild.2020.109761.
- 3. Schweiker, M., Ampatzi, E., Andargie, M. S., Andersen, R., [et.al, including **Edappilly, L. P.**] (2019). "Review of multi-domain approaches to indoor environmental perception and behaviour", *Buildings and Environment*. (Manuscript submitted)
- 4. **Edappilly, L. P.**, and Naseer, M. A. (2019). "Retrofit solution for roof system through induced airflow". (Manuscript to be submitted)
- 5. Joshima, V.M, Naseer, M. A, and **Edappilly, L. P.** (2018). 'Thermal Performance of Roof Coverings in Warm Humid Climate Study of Kerala Residential Buildings'. *International Convention on Performance of Built Environment Metagreen Dimensions*.
- 6. **Edappilly, L. P.**, and Naseer, M. A. (2017). "Experimental investigation on thermal performance of different types of roofs in warm humid climate". 2nd *International Conference on Sustainable Built Environment SBE 2017.* (Received Best Paper Award)

7. Naseer, M. A, and **Edappilly, L. P.** (2016). 'Experimental Investigation on Thermal Performance of RCC Roofs – Exposed and with Common Covering Materials'. *National Conference on Energy, Economy and Environment ENERGY2016*.

(Research metrics, and draft publications under review available upon request.)

HONOURS AND AWARDS

Awarded DAAD fellowship to pursue research at Building Science Group (FBTA), Karlsruhe Institute of Technology (KIT), Germany (One of 6 recipients of scholarship awarded in 2018 from over 1000 students campus wide)	Jun 2018
Awarded Gold Medal for highest CGPA in all semesters of Bachelor of Architecture, NIT Calicut	Sep 2017
Secured All India Rank 18 in Graduate Aptitude Test in Engineering (Architecture and Planning) at 99.99 th percentile	Mar 2017
Awarded Best Paper Award in International Conference on Sustainable Built Environment – SBE 2017	Feb 2017
Awarded CBSE Central Sector Scheme Scholarship by Government of India for 5 years of Undergraduate studies	Sep 2012
Secured All India Rank 652 in All India Engineering Entrance Examination at 99.95 th percentile	May 2012
Awarded INSPIRE Fellowship for achieving 99th percentile in AISSCE (All India Senior School Certificate Examination)	May 2012

RESEARCH EXPERIENCE

Master of Science by Research

Thermal comfort scales – Analysis of a Large-scale questionnaire survey

Jul 2017 - Present

Research Advisor: Prof. K. Ramamurthy

- Conducted location specific correlation analysis of thermal perspective votes for Naturally ventilated and Environmentally controlled classrooms.
- Analysed inter-dependence of verbal anchors and perception votes in thermal comfort studies.
- Modelled thermal sensation and comfort from primary and secondary independent variable and evaluated for equidistance of scales.

DAAD Exchange Research

Contextual differences in the individual's interpretation of thermal comfort scales a large - scale international field study

Sep 2018 - Mar 2019

Research Advisor(s): Prof. Andreas Wagner & Dr. Marcel Schweiker

- Analysed and modelled thermal perception votes from the Large Scales International survey using R environment.
- Linear and ordinal regression models were developed and compared to evaluate equidistance.

Bachelor Thesis & Research

Satellite Campus Design for IIT Madras

Jul 2016 - Mar 2017

Research Advisor: Dr. Chithra K.

- Prepared campus design proposal for a separate research campus for IIT Madras.
- Developed shading device design for the educational complex building.

Study of Thermal Comfort of Roof Construction in Residential Buildings of Kerala

Jul 2015 - Dec 2015

Research Advisor: Prof. Naseer M. A.

- Conducted experimental field study of 5 residential buildings for thermal performance of roof overlay materials.
- Retrofitting solution of roofing covering system was proposed and investigated for indoor thermal performance.

Independent Works

Redesign of Kindergarten (Vanavani, IIT Madras)

Dec 2017 - Mar 2018

Research Advisor: Prof. K. Ramamurthy

The kindergarten school was redesigned to incorporate more facilities and increase the capacity of the school.

WORK EXPERIENCE

Research Assistant, Indian Institute of Technology Madras

Jun 2017 - Present

Sep 2018 - Mar 2019

Guest Scholar (DAAD IIT Master Sandwich Program),

Karlsruhe Institute of Technology, Karlsruhe, Germany

(One of 6 recipients of scholarship awarded in 2018 from over 1000 students campus wide)

Architectural Internship, PTK Architects Pvt Ltd., Chennai, India

Jun 2016 - Nov 2016

Architectural Summer Internship, *Eco Design Architects*, Palakkad, India

May 2014 & May 2015

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Organizing Member and Design Head, 71st RILEM Week & ICACMS 2017

Sept 2017

Mar 2015 & Jan 2017

Indian Institute of Technology Madras, Chennai, India

- Sessions management
- Design team head for the conference

Organizing Member, 1st & 2nd International Conference on Design Pedagogy and

Contextual Aesthetics (ICDPCA)

National Institute of Technology Calicut, Calicut, India

Adizya '14 (Architectural Fest)

Mar 2014

National Institute of Technology Calicut, Calicut, India

Founding team member of the Architectural fest

Organized lectures delivered by eminent speakers

2005 - 2015 Volunteer

Balavikas service group, Sri Sathya Sai Seva Organisation Palakkad, Kerala, India

Volunteer Jan 2014 - Jun 2014

National Service Scheme (NSS)

National Institute of Technology Calicut, Calicut, India

SELECTED COURSES

Master of Science

- Building Services
- Air-Conditioning and Ventilation
- Building Science Lab
- Smart building and Automation
- Construction Software lab
- CAD in Civil Engineering

Bachelor of Architecture

- Building Climatology and Solar Architecture
- Heating Ventilation and Air conditioning
- Building Science Laboratory
- o Environmental studies for Architecture

SKILLS

Revit®, Sketchup, AutoCAD®, Tekla Structures **Design Software**

Programming Languages

C++, VB.Net, R environment

Creativity

Illustrator, InDesign, Photoshop, Lumion, 3Ds Max

Productivity L_AT^EX, Microsoft Office

Linguistics **English** Native / Bilingual Proficiency

> German Elementary Proficiency (A1)

Hindi Minimum Professional Proficiency

Malayalam Native / Bilingual Proficiency **Tamil** Limited Working Proficiency

Teluqu Elementary Proficiency