

Radhakrishna Bangalore Lakshmiprasad

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An enthusiastic, ambitious and highly motivated individual with key strengths in team leadership, technical competency and interpersonal skills. Eager to be willing to add to the knowledge base and skill in the water sector.

EDUCATION

University of Stuttgart

MSc. Water Resource Engineering and Management (WAREM) - **1.6/4**

Stuttgart, Germany

September. 2018 – Expected Jan 2021

BMS College of Engineering (VTU)

B.E.Civil Engineering - **8.87/10**

Bengaluru, India

Aug. 2014 – Sept. 2018

Sri Kumarans PU Composite College

PU Board Certificate (PCMB) - **97.5%**

Bengaluru, India

Jun. 2012 – Jun. 2014

RESEARCH EXPERIENCE

Master Thesis Project | VEGAS Institute and RBS Wave GmBH

May 2020 - Present

Topic: Heat and moisture transport from ground surface to water supply pipes.

- Organized and set up outdoor experiment for data collection of 66 Sensors involving calibration, installation and design of data acquisition system.
- Conducted lab experiments to determine variably saturated (Hyprop) and saturated parameters (Darcy) of the soil along with grain size distribution analysis.
- Analyzed time series data, identified errors, conducted statistical and correlation analysis of weather station, soil temperature data and data from outdoor experiment.
- Modelled time series data using ARIMA, ARIMAX with seasonal components, ETS decomposition method and similar programs to substitute erroneous and missing data.
- Developed physical based and statistical models to estimate evapotranspiration, thermal diffusivity and hence subsurface temperature and conducted sensitivity analysis.
- Worked on a transient 1-dimensional numerical model solved using coupled heat and moisture flow based on non-isothermal Richards equation (DUMUX).

Research Intern (Voluntary) - Funded by STUBE-BW

Sept 2019 – Nov 2019

Ashoka Trust for Research in Ecology and the Environment (ATREE)

Bengaluru, India

Topic: Action research project to test the idea of integrated urban water management in a tank cascade catchment.

- Created a GIS database of study catchment by drawing the hydrological boundary and overlaying ward and peri-urban settlement.
- Linked Census 2011 data of drinking water resources, sanitary facilities and other water related amenities to the layers and estimating population.
- Estimated domestic and CII (commercial-industrial-institutional) water consumption, interpolating economic census data along with known consumption coefficients.
- Modelled the likely surface runoff by creating a land use map and using curve number based methods with rainfall data for runoff estimations.
- Conducted field work to understand water flows and structures.

Lead author of 'Self sustainable townships - Exploring new horizons'

June 2016 – Nov 2017

National conference - Advances and trends in civil engineering, ISBN: 978-93-87769-06-9, 2017.

Bengaluru, India

- Surveyed 20 acre agricultural land, preprocessed and developed digital elevation model leading a team of 8.
- Designed township layout based on the principles of self-sustainability by proposing concepts such as rainwater water harvesting, poly-culture integrated farms, waste management, etc.
- Awarded as Best Paper.

PROJECTS/RELEVANT MODULES

Applications of hydrological modelling using ArcGIS, Esslingen: Created a GIS database from online sources, estimated runoff using SCS-CN method, produced an scientific article.

Urban flood vulnerability and risk assessment, Bengaluru: Examined and described scientific article on growth and development of water resources and the influence of climate change, anthropogenic influences, governance structure and proposed adaptation and mitigation strategies.

Extensive survey project: Carried out a 10 day survey camp to collect data; preprocessing and initial analysis of data; layout design, estimations and report preparation of 4 sub-projects: New tank, Highway, Township and water supply.

Modules (MSc.): Environmental fluid mechanics, chemistry and biology for environmental engineers, applied GIS, regional and urban planning, data statistics and optimization, geostatistics and stochastic modelling

Modules (B.E.): Mathematics, environmental studies, engineering geology, mechanics of fluids, surveying, soil mechanics, hydraulics and hydraulic machines, water supply engineering, foundation engineering, hydrology and water resources

LEADERSHIP/TEAMWORK/VOLUNTARY EXPERIENCE

Student Administrator | WAREM, University of Stuttgart Apr 2019 – Feb 2020

- Upgraded and administrated the social media appearance of the WAREM website and facebook profile.
- Organized weekly seminars and collaborated with students, teaching staff and trainees.
- Served as a student representative to address student concerns in the WAREM committee board.
- Co-organized the one week workshop on 'Water sensitivity - Stuttgart'.
- Served as the Editor for the WAREM newsletter.

Vice President | IAHR-BW Young Professional Network Committee May 2019 - Nov 2020

- Initiated, designed and planned the 'IAHR Buddy Program' to support incoming WAREM students to facilitate inter-generational knowledge transfer for two successful years.
- Organized seminars, annual symposium and job application training.
- Organized social events such as the movie night and the annual football tournament.

Global Volunteer - Funded by DAAD | AIESEC, Damietta University, Egypt Mar. 2019 – Apr 2019

- Undergone intercultural and leadership training program.
- Mentored Bachelor students writing their thesis on industrial waste water treatment.
- Carried out a literature review on climate adaptation strategies for the water management sector.

Other Clubs:

- **Fellow at STUBE-BW and World University Services (Oct 2018 - Present):** Participated in 4 international student weekend workshops and several social events with the focus on imparting global knowledge and allowing intercultural experience.

TECHNICAL SKILLS

Languages: Python, C++, LaTeX, DuMuX (Open source simulator for porous media).

Software: MS office, ArcGIS, QGIS, AutoCAD, REVIT, Building Information Modelling (BIM).

Developer Tools: Git, Google Cloud Platform, Jupyter Notebook, Visual Studio, PyCharm.

Libraries: Pandas, NumPy, Matplotlib, Scipy, Scikit-learn.

AWARDS

State level CET Rank (2014) - 2719/112657 (2.4%): General merit seat for bachelors of civil engineering.

University football team (2014-2018): Runners up - state level Reliance Cup, inter-zonal VTU tournament etc.

PERSONAL SKILLS

Computer Languages:

- * English : IELTS (6.5/8) - Professional working proficiency.
- * German : C1 - Intermediate working proficiency.

Hobbies: Yoga, football, german tutoring, dance, table tennis, cycling.