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| **EDUCATION** |
| **Graduate: Master of Science in Civil & Environmental Engineering****Program: Societal Risk Management**University of Illinois at Urbana-Champaign (UIUC), Illinois, USA |  *Expected Graduation: 06/2017* |
| **Undergraduate: Bachelor of Technology in Civil Engineering** National Institute of Technology Karnataka (NITK), Surathkal, Karnataka, India |  *05/2015* |
| * **Undergraduate GPA:** 8.81 / 10.0
* **Programming Skills:** **MATLAB** (Very High: 5/5); **C** (High: 4/5); **C++**(High: 3.5/5); **Python**(High: 3/5);
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| **TEACHING EXPERIENCE** |
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| **Voluntarily Teaching, Basic Computer Education and Programming**, Karnataka Regional Engineering College School, NITK Surathkal, Karnataka India |  *08/2011 – 04/2015* |
| * Tutored 60+ deprived school children a basic computer education as a member of **Computer Society of India,** NITK Student Chapter
* Educated them to use and practice Notepad, WordPad, Paint, MS Office (Word, Excel, PowerPoint)
* Introduced to them basic C program using simple algorithms like addition, rearranging numbers in order
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| **Voluntarily Teaching,**  ASCE NITK Student Chapter, NITK Surathkal, Karnataka India |  *08/2011 – 04/2015* |
| * Conducted workshops **on MATLAB, AutoCAD, STAAD.Pro and SAP** software tools for 100+ student members of NITK ASCE Student Chapter
* Engaged and trained them these software tools with a hands on experience in various engineering applications
* Mentored a team of 7 for a project titled “Damage Assessment using Probabilistic Approach”
* Initiated ‘SchoolEngg’, a forum under the aegis of NITK Student Chapter aimed at giving a beforehand knowledge, especially to give high school students an idea of what they will experience as an Engineer
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| **RESEARCH AND INDUSTRIAL EXPERIENCE** |
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| **Graduate Independent Research Project**, Uncertainty Quantification Group,UIUC, Illinois, USA |  *08/2015 – present* |
| * **Uncertainty Quantification in the design and analysis of engineering systems**, mentored by ***Dr Hadi Meidani***
* Developing computational models using generalized polynomial chaos expansions for propagating the parametric uncertainties using **MATLAB, Python and C++**
* Optimizing computational models using compressive sampling techniques - convex optimization (L1 & L2-norm)
* Performing sensitivity analysis to determine the importance parameters which drive the system
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| **Graduate Course Project**, Reliability Analysis (CEE 598RA),UIUC, Illinois, USA |  *10/2015 – present* |
| * **Influence of shape of tied arch bridges on the failure load**, mentored by ***Prof. Paolo Gardoni***
* Determining better statistical prediction of an optimized shape for a given load distribution using reliability analysis techniques
* Analyzing the limit state function, to determine the probability of failure and its reliability index using FORM, SORM and **Markov Chain Monte-Carlo Simulations** using OpenSees & FERUM software tools
* Performing sensitivity analysis to determine the importance parameters which drive the system
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| **Bachelor Thesis,** Design of High Rise Buildings,NITK Surathkal, Karnataka, India |  *07/2014 – 05/2015* |
| * Studied the **behavior of tall buildings prone to moderate seismic risk as well as high wind velocity**, mentored by ***Prof. K. S. Babu Narayan***
* Learned about various structural systems and the process involved in design of tall buildings
* Performed rigorous analysis of the 40 storied structure using E-TABS software program; and design and detailing for envelope of the structural elements was provided as per the guidelines of Indian Standard codes.
* Shearwall mechanized structural system was adopted and checked for its adequacy
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| **Undergraduate Research Assistant**, Computational Sensor Laboratory,**Michigan State University**, East Lansing, Michigan, USA | *05/2014 - 07/2014* |
| * Engineering Summer Undergraduate Research Experience (**EnSURE)** scholar, mentored by ***Dr Nizar Lajnef***
* Developed a long term piezoelectric based **structural monitoring system using self-powered wireless sensors**
* Learned the techniques involved in conversion of ambient energy to electric power to activate wireless sensors
* Analyzed experimental data obtained from strain gages and piezoelectric discs installed on steel plates with different damage scenarios using MATLAB, and compared results with that obtained by ABAQUS
* Applied signal processing techniques to remove noise generated in experiments (low pass filter)
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| **Undergraduate Research Project**, Structural Engineering Laboratory, NITK Surathkal, Karnataka, India |  *07/2013 - 12/2013* |
| * Piloted a study on **Durability of Concrete in Coastal Areas (Severe Zone)**, mentored by ***Prof. Katta Venkatarmana***
* Delinked Durability of Concrete, from Strength as specified in Indian Code (IS 456: 2000), which mandates use of M30 as minimum grade of concrete in RCC works to achieve desired durability in coastal areas
* Cast and tested PCC slabs of two different concrete mixes having compressive strength of 30MPa and 25MPa (blended with 70% GGBS) for chloride ion permeability using PERMIT ion permeability test apparatus.
* Analyzed experimental data using Excel and PLX-DAQ tool
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| **Undergraduate Research Intern,** Earthquake Engineering Research Center (**EERC**),Indian Institute of Information Technology, Hyderabad, Telangana, India |  *06/2013 -07/2013*  |
| * Independent Project on **Static and Dynamic Analysis of Multi Storied Residential Building**, mentored by

***Prof. Ramancharla Pradeep Kumar**** Analyzed and designed a Ground plus 3 storied building and compared results using different software tools (STAAD.Pro and SAP 2000) to that obtained by theoretical methods (Portal Frame & Cantilever Method)
* Performed Time History Analysis by using ground motions of El Centro Earthquake, Northridge Earthquake, Park field Earthquake and Bhuj Earthquake and validated structural behaviour
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| **Industrial Internship, Student Trainee,** 12/2012 Bhate & Raje Construction Co. Pvt. Ltd., Pune, Maharashtra, India * Learned to read and understand the designs, drawings, bar bending schedules and detailing involved in a project
* Exposed to the onsite application of RC Design, Mix Design, Quality Control and Safety Measures
* Learned the thermal behaviour of radiant cooling slabs
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| **PUBLICATIONS & PROFESSIONAL PRESENTATIONS**  |
| * Girish Kumar, Abhishek Salkar, Abhishek Master, ***Anand Bhattad***, Katta Venkatramana, K Rajendra Prabhu, “Durability of Concrete in Coastal Areas (Severe Zone)”, 4th International Engineering Symposium-IES 2015, Kumamoto University, Japan. March 4-6, 2015.
* Presented a research poster titled **‘Damage Assessment Using Self-Powered Wireless Sensors’** at **Mid-Michigan Symposium for Undergraduate Research Experiences (Mid - SURE) - 2014**, Michigan State University, East Lansing, Michigan, USA
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| **LEADERSHIP AND OUTREACH** |
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| **American Society of Civil Engineers, NITK Student Chapter** |  *04/2013 – 05/2015* |
| **Co-Founder, Treasurer** |  *04/2013 - 05/2014* |
| * **Cofounded NITK ASCE Student Chapter** & structured it to be beneficial to NITK Civil Engineering Students
* Motivated peers and raised membership from 11 to 96 in a span of 6 months
* Drafted budgets, cost reports and mobilized resources for 2013-14 academic year
* Coordinated with board members, faculty, speakers and outside organizations to facilitate 10+ events
* Organized talks by eminent academicians like Prof. Ravindra K Dhir, Prof. Venkatesh Kodur & Prof. Pradeep Mazumdar, and on-site experts like Anil K. Pillai, Dr Sarath Chandra Kar & Dr Chandan Gosh.
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| **Joint Convener,** Civil Events, ENGINEER, Annual Technical Symposium, NITK Surathkal | *10/2015* |
| * Co-led a team of 55 members and successfully organized the **2nd largest technical symposium** of South-India
* Coordinated with various universities across India, various administrative departments of the host university and increased participation by 75% as compared to the previous year
* Publicized and collaborated with Industries to sponsor all these events
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