CHETHAN RAMAKRISHNA REDDY (PREFFERED NAME – CHETHAN)

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EDUCATION

- Currently pursuing (2016-Present) **Ph.D. in Mechanical Engineering – Engineering Mechanics (ME-EM)** from Michigan Technological University (MTU), USA. **Co-advised by Dr. Mahdi Shahbakhti and Dr. Rush D. Robinett III**. CGPA – 3.79/4.00
  Research focus - Model-based predictive control (MPC) of co-generation energy systems
- Highest degree earned (2011-2013) is **Master of Technology (M.Tech.) in Mechatronics Engineering** from National Institute of Technology Karnataka (NITK), India. CGPA – 8.37 on a scale of 10, US CGPA equivalency – 4.00/4.00

ACADEMIC PROJECTS

- PhD course projects
  - *Fuel consumption reduction technologies and hybrid design*
  - *Control-system for a hybrid ECU (MotoTron ECU)*
  - *Effect of external supercharging in a CI diesel engine with swirl combustion chamber*
  - *Efficacy of PV solar energy in Houghton, MI*
  - *Decentralized model-predictive control for thermal control of buildings*
  - *Optimal control of wave energy converters*
- Masters' thesis – *Development of automotive thermoelectric generator (ATEG).*
- Bachelors' thesis – *Design and fabrication of boundary layer turbine as a potential automotive engine (Compressed air as fuel).*

WORK EXPERIENCE

Organization	Duration	Role
Michigan Technological University, Houghton, Michigan, USA	22 May 2017 to Present	Graduate Research Assistant in Energy Mechatronics Lab.
	28 August 2017 to Present	Graduate Teaching Assistant for the course Mechanical Engineering Practice IV (Fall 2017 & Spring 2018)
Robert Bosch Engineering and Business Solutions Limited (RBEI), Bangalore, Karnataka, India	1 October 2015 to 5 August 2016	Senior Engineer– Modeling and System Simulation
	19 August 2013 to 30 September 2015	Engineer– Modeling and System Simulation
	4 June 2012 to 29 March 2013	Project Intern (Masters' thesis)

TECHNICAL SKILLS

1. Modeling/Simulation/Data analysis in **MATLAB/Simulink** environment
2. Automobile system modeling & simulation – **GT-SUITE, AMESim**
3. Energy systems modeling & simulation
4. Model-based engineering
5. Model-based predictive control
6. Embedded software development cycle – Usage of automated tool chain, eg. **ETAS, DSPACE, MotoHawk**
7. Model in loop (MiL), software in loop (SiL) and hardware in loop (HiL) development/testing.

ACHIEVEMENTS

1. Received "Outstanding Graduate Student Teaching Award" for Fall 2017 term.
2. Demonstrated ANCE (Active Noise Cancellation and Enhancement) project on a two-wheeler at RBEI.

CERTIFICATIONS

1. Completed "Evaluating writing training program" as a Graduate Teaching Assistant" in the Department of Mechanical Engineering-Engineering Mechanics, Michigan Technological University, Houghton, Michigan, USA
2. Completed a practical and hands on course in automobile servicing and maintenance in G.D. Naidu Charities, Coimbatore, India
3. Completed a familiarization course in H.A.L. Aircraft division, Bangalore, India

LANGUAGES KNOWN

English – Business fluent (Read, write & speak)

Indian Languages known – Telugu (mother tongue), Kannada, Hindi

German (Basic Conversation skills) – 1A qualified

PUBLICATION

Chethan R Reddy, Shrikantha S Rao, Vijay Desai, Karthikeyan Ramachadran – "Modeling of an Automotive ThermoElectric Generator (ATEG)." Volume 2 Issue 5 May 2013 in International Journal of Science and Research (IJSR).

INTERNATIONAL EXPERIENCE

Germany – Two-week business visit to BEG (Bosch Engineering Group) in Feb 2014.

PERSONAL DETAILS

Date of Birth: 14 December 1989 **Sex:** Male **Marital Status:** Single **Passport:** H5362516 (India) **US VISA:** F1