

SATYA R. T. PEDDADA

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Education

- **University of Illinois at Urbana-Champaign** **Urbana, IL, USA**
MS in Systems and Entrepreneurial Engineering, GPA- 3.6/4.0 *January 2016–present*
- **National Institute of Technology at Trichy** **Trichy, TN, India**
B.Tech. in Instrumentation and Control Engineering, CGPA-9.4/10.0 *July 2011–May 2015*

Research Experience

- **Engineering Systems Design Lab (ESDL), UIUC** **Urbana, IL, USA**
Graduate Research Assistant-Researched on Optimal System Design Methods *Jan. 2016–present*
- **Systems Engineering of the Natural and Artificial Group (SENA), IIT Madras** **Madras, TN, India**
Engineering Research Scholar - Researched on Optimal Pipe distribution networks *July-Dec., 2015*
- **Dynamic Systems and Control Lab (DSCL), NIT Trichy** **Trichy, TN, India**
Summer Research Intern-Developed a UAV drone for surveillance studies. *April -June, 2015*
- **Automotive Systems Design and Innovation Lab (ASDIL), NIT Trichy** **Trichy, TN, India**
Undergraduate Researcher- Hybrid-vehicle system design and development studies. *May-July, 2014*

Research Interests

Multi-disciplinary Dynamic Systems Design Optimization (MDSDO) • Integrated Plant and Control System Design • Optimal Temperature Sensor placement • Reliability and Failure Mode Analysis • Active Cooling System Architecture Design • High Power Density Electric Machine Design •

Select Publications

- Pamela J Tannous, **Satya R T Peddada**, James T Allison, Thomas Foulkes, Robert P Pilawa, Andrew G Alleyne. 'Model-based Temperature Estimation of Power Electronics Systems' IEEE Transactions on Industrial Electronics, 2017 [submitted]
- **Satya R T Peddada**, Pamela J Tannous, Andrew G Alleyne, James T Allison. "Optimal Sensor Placement Methods for Power Electronics Systems." ASME 2017 International Design Engineering Technical Conferences, IDETC, Cleveland, Ohio, USA, August 2017.
- Pamela J Tannous, **Satya R T Peddada**, James T Allison, Thomas Foulkes, Robert P Pilawa, Andrew G Alleyne. 'Dynamic Temperature Estimation of Power Electronics Systems.' In American Control Conference (ACC), May, 2017.
- **Satya Ravi Teja.P**, Sai Srikar. A, V. Kushal and Srinivasan. K.-"Photosensitive security system for theft detection and control using GSM technology". IEEE SPACES Conference at Koneru Lakshmaiah University, Vijayawada, India (Jan, 2015).
- **Satya Ravi Teja.P**, Sai Srikar. A and Ramakalyan. A.-"An Alternative Design for the Traditional Lag-Lead Compensator."- IEEE Potentials Magazine. (Sept. 2014).

Technical skills

- **Programming Languages:** Proficient in: C, C++, Python, Matlab, R, Arduino, and TeX
- **Industry Software Skills:** Advanced: SolidWorks and Matlab, Intermediate : Ansys and LTspice