Shourya Bose

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EDUCATION

1. **Ph.D. Electrical and Computer Engineering**   **Sep 2020-**

   University of California Santa Cruz, California, USA
   - Recipient of Chancellor's Fellowship. Completed my master's coursework with a 3.96 GPA and now focusing on research.
   - I study the intersection of electric power systems, machine learning, optimization, and control theory.

2. **B.E. Electrical and Electronics Engineering & M.Sc. Mathematics**   **2014-2019**

   BITS Pilani Goa Campus, Goa, India
   - Graduated with a dual degree, B.E. in EEE and an M.Sc in Mathematics.
   - Spent last year of studies at Department of Electrical Engineering, Indian Institute of Science (IISc) for thesis.

WORK EXPERIENCE

1. **Project Associate**   **Mar 2020 - Aug 2020**

   Indian Institute of Science, Bengaluru, India
   - Worked with the same group as the previous internsip.
   - Theoretical research led to publication of first-author article in IET Control Theory and Applications.

2. **Research Intern**   **Jan 2019 - Feb 2020**

   Indian Institute of Science, Bengaluru, India
   - Worked as a part of the Control & Network Systems Group.
   - On the theoretical side, I explored the problem of event-triggered control in linear systems with unreliable communications. On the applied side, I simulated a multi-scale search algorithm for a UAV with downward pointing sensor in MATLAB (original work: Dr. S. Carpin, UCM).

3. **Research Intern**   **Jan 2019 - Dec 2019**

   Pixxel, Bengaluru, India
   - Volunteered to do some orbital simulations to reckon number of satellites needed in constellation for parameters like coverage, revisit time, etc. Used AGI STK and NASA GMAT software, along with some post-processing on MATLAB.

PUBLICATIONS

1. "Co-optimization of Battery Routing and Load Restoration for Microgrids with Mobile Energy Storage Systems", **S. Bose** and Y. Zhang, *Accepted for IEEE PES-GM 2022*.
2. "Differentially Private Load Restoration for Microgrids with Distributed Energy Storage", **S. Bose** and Y. Zhang, *Accepted for IEEE ISGT 2022 NA*, PDF.
3. "Load Restoration in Islanded Microgrids: Formulation and Solution Strategies", **S. Bose** and Y. Zhang, *Pre-publication*, ArXiv Link.
   - Pre-publication manuscript received INFORMS Energy, Natural Resources and the Environment (ENRE) 2021 early-career best paper award.
4. "Event-Triggered Second-Moment Stabilisation under Action-Dependent Markov Packet Drops", **S. Bose** and P. Tallapragada, *IET Control Theory & Applications Vol. 15 No.7*, Link.
5. "Event-Triggered Second Moment Stabilization under Markov Packet Drops", **S. Bose** and P. Tallapragada, *Fifth Indian Control Conference, 2019*, Link.
6. "Numerical Solution for a System of Fractional Differential Equations with Applications in Fluid Dynamics and Chemical Engineering", B. Prakash, A. Setia and **S. Bose**, *International Journal of Chemical Reactor Engineering*, Link.

SKILLS

1. *Programming languages*	Python (pytorch), Matlab (and Simulink), C, x86 Assembly, LaTeX
2. *Power Systems software & packages*	OpenDSS, MATPOWER (Matlab)
3. *Miscellaneous*	Adobe Photoshop, Powerpoint, LaTeX