Dr. Sanjay Ghosh
Assistant Professor
(May 2024 - Present)
Department of Electrical Engineering,
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EDUCATION and EXPERIENCE

- **Doctor of Philosophy** - Electrical Engineering 2014 - 2019
  Indian Institute of Science, Bangalore, India. (*Degree awarded: Dec 21, 2019*)

  Thesis: Kernel Based Image Filtering: Fast Algorithms and Applications
  Supervisor: Prof. Kunal Narayan Chaudhury.

- **Postdoctoral Scholar**, University of California San Francisco 2020 - 2024
  `Research focus`: Multimodal brain imaging, supervised algorithms for brain imaging data analysis.
  Mentors: Prof. Srikantan S. Nagarajan and Prof. Ashish Raj.

RESEARCH INTERESTS

- Brain signal processing, modeling and connectivity analysis.
- Deep learning based methods for neurological disorder prognosis.
- Low-complexity algorithms for signal and image processing.

SELECTED PUBLICATIONS

1. C. Cai, Y. Long, **S. Ghosh**, A. Hashemi, B. Chen, Y. Gao, M. Diwakar, S. Haufe, K. Sekihara, W. Wu, and S. S. Nagarajan, "Bayesian adaptive beamformer for robust electromagnetic brain imaging of correlated sources in high spatial resolution," *IEEE Transactions on Medical Imaging*, 2023. (**Accepted**)
2. **S. Ghosh**, A. Raj, and S. S. Nagarajan, "A Joint Subspace Mapping Between Structural and Functional Brain Connectomes," *NeuroImage*, 2023. (**Accepted**)
3. A. Hashemi, C. Cai, Y. Gao, **S. Ghosh**, K.-R. Müller, S. S. Nagarajan, and S. Haufe, "Joint learning of full-structure noise in hierarchical Bayesian regression models," *IEEE Transactions on Medical Imaging*, 2022. (**Accepted**)
4. C. T. Lin[†], **S. Ghosh**[†], L. B. Hinkley, C. L. Dale, A. Souza, J. H. Sabes, C. P. Hess, M. E. Adams, S. W. Cheung, and S. S. Nagarajan, "Multi-tasking deep network for tinnitus classification and severity prediction from multimodal structural MR images," *Journal of Neural Engineering*, vol. 20, pp. 016017, 2023. (†: equal contributions) [link]
5. **S. Ghosh**, R. G. Gavaskar, D. Panda, and K. N. Chaudhury, "Fast scale-adaptive bilateral texture smoothing," *IEEE Trans. on Circuits and Systems for Video Technology*, vol. 30, no. 7, 2020. [link].
6. **S. Ghosh**, P. Nair, and K. N. Chaudhury, "Optimized Fourier bilateral filtering," *IEEE Signal Processing Letters*, vol. 25, no. 10, pp. 1555-1559, 2018. [link]

AWARDS / FELLOWSHIPS / ACHIEVEMENTS

- Silver Award, "Ketamine in depression" data analysis competition, International Conference on Biomagnetism (BIOMAG), 2022.
- Finalist, Doctoral Consortium, SIGGRAPH Asia 2019. [link]
- Best Student Paper Award, IEEE Global Conf. on Signal and Information Processing, 2018. [link]