Nickolaj Ajay Atchuthan
PhD Fellow
Department of Health Science and Technology
The Faculty of Medicine
Neural Engineering and Neurophysiology
Center for Neuroplasticity and Pain
Type of address: Visiting address.
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Research profile

I hold a Master of Science in Biomedical Engineering and Informatics, and have experience as a research assistant. I am continuing my work as a PhD fellow. My expertise in signal processing and deep learning is being leveraged in my research project, which aims to understand pain processing through intracranial signals from multiple brain regions in a large animal model.

Qualifications

Biomedical Engineering and Informatics, Master of Science, Using a CNN-LSTM Architecture to Classify Chronic Pain Models based on µECoG Recordings from S1 in large animal models
1 Sept 2021 → 21 Jun 2023
Award Date: 21 Jun 2023

Biomedical Engineering and Informatics, Bachelor of Science, Modality matched termotactile feedback system for hand prosthetic users
3 Sept 2018 → 29 Jun 2021
Award Date: 29 Jun 2021

Employment

PhD Fellow
PhD Fellow
Department of Health Science and Technology
The Faculty of Medicine
Gistrup, Denmark
15 Oct 2023 → 31 Dec 4712

PhD Fellow
PhD Fellow
The Faculty of Medicine
Gistrup, Denmark
15 Oct 2023 → 31 Dec 4712

PhD Fellow
PhD Fellow
Neural Engineering and Neurophysiology
The Faculty of Medicine
Gistrup, Denmark
15 Oct 2023 → 31 Dec 4712

Center for Neuroplasticity and Pain
The Faculty of Medicine
Aalborg East, Denmark
15 Oct 2023 → present

Research outputs

Exploring Tonic and Burst Stimulation in Neural Fibers: A Computational Modeling Approach

Atchuthan, N. A., Grill, W. M. & Meijs, S., Jul 2025, *2025 47th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC).* IEEE (Institute of Electrical and Electronics Engineers), Vol. 2025. p. 1-6 6 p. 11253067. (I E E E Engineering in Medicine and Biology Society. Conference Proceedings).

Strengths & Weaknesses of RANSAC applied to Epidural & Intracortical Recordings

Atchuthan, N. A., Andreis, F. R., Jensen, W. & Meijs, S., Jul 2025, *2025 47th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC).* IEEE (Institute of Electrical and Electronics Engineers), Vol. 2025. p. 1-6 6 p. 11252752. (I E E E Engineering in Medicine and Biology Society. Conference Proceedings).

A convolutional neural network to distinguish between brain responses to non-noxious and noxious input of the same modality: what does the machine see that we do not see?

Atchuthan, N. A., Danyar, M. B., Clark, H. F., Rettore Andreis, F., Jensen, W. & Meijs, S., 2025, Research Square Platform LLC, 23 p.

Classification of noxious and non-noxious event-related potentials from S1 in pigs using a convolutional neural network

Atchuthan, N. A., Clark, H., Danyar, M. B., Andersen, A. K., Andreis, F. R. & Meijs, S., 24 Apr 2023, *11th International IEEE/EMBS Conference on Neural Engineering, NER 2023 - Proceedings.* IEEE (Institute of Electrical and Electronics Engineers), 10123776. (International IEEE/EMBS Conference on Neural Engineering, NER).