C L Srinivas

Curriculum Vitae

"Too mathematical to interest most biologists and not sufficiently mathematical to interest most mathematicians"

Education

2021–2026 **Integrated Msc**, *National Institute of Science Education and Research*, Bhubaneswar.
CGPA - 8.74

2009–2021 **Schooling**, *Kendriya Vidyalaya No. 1, Palakkad, Kerala*.
X^{th} - *97%*, XII^{th} - *97.8%*

Publications

Manuscript under preparation **Publication**, National Institute of Science Education and Research, In collaboration with N Devanand[1], Shwetha Sasindran[1], Dr. Rittik Deb[1], 1 NISER.
This project is aimed at assessing the accuracy of various android SPL measurement applications by comparing them with a standard Brüel & Kjær SLM. Testing is done inside an anechoic chamber by comparing readings across a frequency range of 3kHz to 10kHz with varying sound levels at each frequency.

Manuscript under preparation **Publication**, National Institute of Science Education and Research, In collaboration with M Sreerag[1], Dr. Ronita Mukherjee[2], Dr. Rittik Deb[1], Dr. Shubankar Mishra[1], 1 NISER, 2 ATREE.
The aim of the project was to curate a novel dataset to represent South Indian honey bee diversity in the domain of species classification using deep learning networks. So far, we have curated, tested/bench-marked and analysed the dataset using standard available models. The results highlight the viability of our dataset as a novel contribution to the existing database.

Projects

August 2024 - present **MSc thesis**, National Institute of Science Education and Research, Game Theoretic Modelling of Alternative Reproductive Tactics, Under Dr. Rittik Deb.
My study focuses on the condition dependent ART of "baffling" (calling through a hole within a leaf) in *Oecanthus henryi*, a species of tree cricket. I try to look at the male signaling and female mate choice behavior in *O.henryi* as a discrete action-response communication game between males and females with baffling playing the role of a "cheating" strategy. I want to analyze the biotic and abiotic factors that affect the cost/benefit ratio of baffling and hence the baffling propensity in males.

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Collaborations

August 2024 **Coding**, National Institute of Science Education and Research, In collaboration with Thejas N Manojkumar[1], 1 NISER.

The aim of the project was to write a python script to synthesize artificial calls of the field cricket *Gryllodes sigillatus*. This was done by generating average max-amplitude envelopes of syllables from natural calls, and using these envelopes and a simple sine wave to synthesize the artificial call. The script takes the generated envelopes as input and allows the user to specify the carrier frequency, inter syllable duration and inter chirp duration. The artificial call contains up to the second harmonic. Phonotaxis experiments show that the artificial signals are highly effective in eliciting female response (for codes refer here).

Workshops and Conferences

March 2025 **Workshop**, International Center for Theoretical Sciences, Bangalore, Decisions, Games and Evolution.

Selected to present a poster titled *"A Tree Cricket's Tale; Modeling Alternative Reproductive Tactics as Evolutionarily Stable Strategies in a Communication Game"* in the upcoming workshop on "Decisions, Games and Evolution" at the International Center for Theoretical Sciences, Bangalore

Achievements & Awards

GATE 2024: EY — All India Rank 10 (Ecology and Evolution)

GATE 2024: XL — All India Rank 970 (Life Sciences)

Khorana Scholarship — Selected for the IUSSTF Khorana Program For Scholars 2025

Computer skills

Basic — Microsoft Excel, Krita, Shotcut

Coding — python, R(basic)

Scientific — fiji, PyMol

Typography — LaTeX

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