



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING & MECHANICAL ENGINEERING**

present

**DOCTOR ! WHEN CAN I
GO BACK TO PLAY ?**

With
Speaker

Dr.Murali Murugavel,
SVCE alumnus 1995-1999 Batch
Mechanical department
Neuroimaging Research consultant

Topics to be covered

Intersection of

Neuroscience
Applied Quantum Physics
Sport
Computing

SPORTS
CONCUSSION

Faculty Coordinators
Dr.D.Menaka , Associate Professor
Ms.S.Kalyani , Assistant Professor

Venue:
Central Library Seminar hall
📅 31st July 2024
🕒 10:00 am - 12 pm

Doctor ! When can I go back to Play ?

- Evidence from a neuroimaging study of Sports Related Concussions



This talk will describe two longitudinal MR neuroimaging studies (functional - Working memory, structural - DTI) on athletes who suffered a single episode of sports related concussion. **The talk will showcase the intersection of neuroscience, sport, computing and applied quantum physics.** *To motivate undergraduate students, material linking research to coursework will be on display.*

Speaker Bio

Murali Murugavel (**SVCE Alum 99**) is a neuroscience researcher with broad interests in MR imaging, neuroscience and statistics. He obtained his Ph.D (2009) for work at the Center for Comparative Neuro Imaging at Worcester Polytechnic Institute. He was a researcher at Princeton Neuroscience Institute (2011-2014) where he worked on Concussions.

Audience :

The talk will be at the **undergrad level and accessible to everyone.** It will be of particular relevance to **all 3rd year UG students irrespective of branch.** There will be plenty of time for questions.

Date : 31 Jul 2024 **Venue :** SVCE Auditorium

Time : 10 AM to 12 Noon

Organizers : Mechanical & ECE departments @ SVCE

All are Welcome !

Picture credits:

<https://www.flickr.com/photos/yourden/>

Fwd: Alumni Guest Lecture

1 message

ILAIYAVEL S Mec <ilaiyavel@svce.ac.in>
To: KIRUBAKARAN G MEC <kirubakaran@svce.ac.in>

Tue, Jul 30, 2024 at 9:47 PM

----- Forwarded message -----

From: **MENAKA D ECE** <menaka@svce.ac.in>

Date: Tue, 23 Jul, 2024, 11:30

Subject: Alumni Guest Lecture

To: ILAIYAVEL S Mec <ilaiyavel@svce.ac.in>, KALYANI S ECE <kalyani@svce.ac.in>, KIRUTHIKA DEVI K IT <kiruthika@svce.ac.in>, SATHISH N Bio <nsathish@svce.ac.in>, SHANMUGAVADIVU NATARAJAN <vadivu@svce.ac.in>, SRINIVASAN K Mca <ksrinivasan@svce.ac.in>, Dr. P .JANARTHANAN <janap@svce.ac.in>

Dear Sir/Madam,

The Department of Electronics and Communication Engineering and Mechanical Engineering cordially invite you all for a guest lecture on "Doctor, when can I go back to Play?" by Dr.Murali Murugavel, (SVCE Mechanical alumnus 1995-1999 batch) Neuroscience Researcher on 31st July 2024 (Wednesday) at 10:00AM in the library seminar hall. The talk will showcase the intersection of neuroscience, sport, computing and applied quantum physics.

We request the alumni coordinators of IT, CSE, Biotech, EEE and Mechanical department to nominate 10 students from III Year. Please circulate the below given registration form link to the nominated students and kindly request them to fill up the form.

https://docs.google.com/forms/d/e/1FAIpQLScOm0t1YbBdmnj-iilWyUk_Qt5heuVkiFpIGQlwGpwdgYFGmw/viewform?usp=pp_url

The flyer shared by the alumni is attached herewith.All are Welcome!

Thanking you

With regards,

ECE and Mechanical Alumni Association coordinators

 **Ver2_muraliPosterSVCE_2024Jul31_Talk.pdf**
1189K



Event Report:

Doctor! When can I go back to play?

Organised by Department of Mechanical Engineering, & Department of Electronics & Communication Engineering.

Coordinators:

Dr.D.Menaka, Asso.Prof/ECE, SVCE,

Ms.S.Kalyani, AP/MEC, SVCE.

Mr G Kirubakaran, AP/MEC, SVCE.

Date: 31/07/2024

Venue: Central Library Seminar hall

OBJECTIVE:

The expert talk aimed to provide in-depth insights to students about the crucial role of medical image processing, with a particular focus on MRI technology and its application in diagnosing and managing concussions, emphasizing recent developments and future trends.

EVENT OVERVIEW:

The event started with Tamil Thaivaazthu followed by welcome address by HOD of ECE department. Dr. D. Menaka gave the introduction about the chief guest. Dr. Murali Murugavel began by sharing his academic journey, highlighting how he maximized the resources available to him during his undergraduate and postgraduate studies. These resources played a crucial role in nurturing his burgeoning interest in neuroimaging. He discussed the various books and emerging technologies that significantly influenced his path, with MRI scanning being a particularly prominent tool that captivated his interest and drove much of his research. He elaborated on how MRI technology has been integral to his studies, allowing him to visualize and understand the structural and functional changes in the brain post-concussion. He shared numerous personal anecdotes and detailed experiences from his extensive career, offering valuable insights into the practical applications and challenges of his work. He emphasized the importance of continuous learning and staying updated with technological advancements to push the boundaries of scientific research.



The speaker gave his insights about medical image processing. The session was rich with information, demonstrating how foundational knowledge combined with cutting-edge technology can lead to significant contributions in the field of neuroscience.

The lecture concluded with a dynamic Q&A session, where students had the opportunity to engage directly with Dr. Murugavel, ask questions, and gain further understanding of the topics discussed.

The chief guest was honored by HOD of ECE and HSS department. The event wrapped up with the National Anthem.

Speaker Biodata:

Dr. Murali Murugavel is an alumini from 1999 batch of mechanical department and a researcher affiliated with the Princeton Neuroscience Institute, specifically working within the Dettwiler Concussion Lab at Princeton University. His research primarily focuses on the neuroimaging of brain injuries, particularly sports-related concussions. Dr. Murugavel's work involves using advanced imaging techniques such as Diffusion Tensor Imaging (DTI) and Functional Magnetic Resonance Imaging (fMRI) to study the structural and functional changes in the brain post-concussion. In addition to his work on concussions, Dr. Murugavel has contributed to research on retinal degeneration using zebrafish models. This research aims to understand visual function defects and the progression of retinal diseases such as Stargardt's disease.











CONCLUSION:

This interactive component not only reinforced the key points of his lecture but also inspired many attendees to consider how they might similarly leverage their academic resources and pursue their interests with the same passion and dedication. Dr. Murugavel's visit left a lasting impression, underscoring the importance of resourcefulness, inspiration, and perseverance in the pursuit of academic and professional excellence.