









Department of Biomedical Engineering

Distinguished Guest Lecture

"Algorithm Engineering \neq Algorithm Development"

Topic: Algorithm Engineering \neq Algorithm Development (Online Platform –

Google Meet)

Date: 04.03.2025 (Tuesday) Time: 2.00 P.M. to 3.00 P.M.

Resource Person: Mr. Nabin Tewari

Software Architect at Siemens Healthineers

Mr. Nabin Tewari specializes in medical image processing applications, with a focus on algorithm engineering within the computed tomography (CT) domain.

Programme Objective

This distinguished lecture explores the critical distinction between algorithm development and algorithm engineering within the realm of medical imaging and post-processing applications (commonly referred to as medical devices). It emphasizes how algorithm engineering forms a unique discipline essential for the successful integration of robust, scalable algorithms into these applications. The presentation highlights the specialized skills and approaches required to bridge the gap between algorithm creation and practical implementation in clinical settings.

Program Outcome

• Understanding Algorithm Engineering in Medical Imaging: Attendees will gain a clear understanding of how algorithm engineering differs from algorithm development, particularly in the context of medical imaging applications.

- **Real-World Application Insight**: Participants will learn how algorithm engineering is applied to create efficient, scalable, and robust algorithms for processing and analyzing medical images.
- Complexity and Optimization Techniques: The lecture will enable attendees to grasp the importance of algorithmic complexity and the optimization strategies necessary for real-time medical imaging systems.
- **Practical Tools and Methodologies**: Participants will be introduced to the tools and methods used in evaluating and fine-tuning algorithms specifically for medical imaging.
- Enhancing Image Processing Efficiency: The session will demonstrate how algorithm engineering principles can be applied to enhance the accuracy, efficiency, and performance of medical image analysis tools.
- Critical Decision-Making Skills: Attendees will develop the skills to make informed decisions regarding trade-offs between algorithmic performance, speed, and resource usage, tailored to the unique demands of medical imaging applications.

Participants: 4th & 6th semester students of BME Department + 4 faculties

Event Co-ordinator:

Mrs.Nagashree Pavan, Assistant Professor – BME

Event Poster



Event Photos





Student Participation









Online Webinar





DEPARTMENT OF BIOMEDICAL ENGINEERING

6th SEMESTER STUDENT LIST 2024-2025 Date: 04.03.2025

$\underline{\textbf{Online Webinar:}} \textbf{Algorithm Engineering} \neq \textbf{Algorithm Development}$

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3	1AH22BM004	ARYAN AGRAWAL	tony	
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Head of Department
Bio Medical Engineering
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DEPARTMENT OF BIOMEDICAL ENGINEERING

4th SEMESTER STUDENT LIST 2024-25 Date: 04.03.2025

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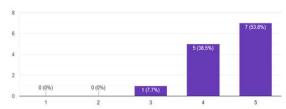
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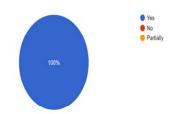
Feedback Details

How would you rate your overall experience of the webinar?





Was the topic "Algorithm Engineering # Algorithm Development" clearly explained? 13 responses



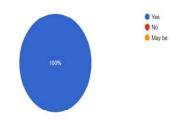
What was the most insightful or useful takeaway from the session?

8 response

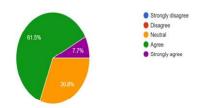


Did the webinar enhance your understanding of the difference between algorithm engineering and algorithm development?

13 response

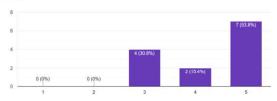






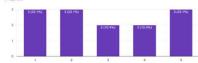
How would you rate the technical depth of the content?





Were your questions and doubts addressed effectively during the session?

Was the speaker engaging and clear in their explanations?

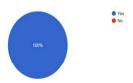






Would you like to attend more webinars on similar topics?





Any additional suggestions or feedback to improve future webinars?

