

## TOPIC OF INTEREST: MACHINE LEARNING

**Machine Learning (ML)** is the study of computer algorithms that can improve automatically through experience and using data. It is seen as a part of artificial intelligence. Machine learning algorithms build a model based on sample data, known as "training data", to make predictions or decisions without being explicitly programmed to do so.

Machine learning algorithms are used in a wide variety of applications, such as in medicine, email filtering, speech recognition, and computer vision, where it is difficult or unfeasible to develop conventional algorithms to perform the needed tasks.

**Source:** Wikipedia

**#DYK:** \$1 billion is the total amount saved by Netflix due to its machine learning algorithm that helps personalize content recommendations for its users.

**#nisthfellows** working in fields related to Machine Learning : Shijian Lu, Gao Cong, Wai Kin Adams Kong, Wilson Wen Bin Goh, Lihui Chen, Bo An and Kwok Yan Lam.

### #nisthreads:

- [Multi-Level Adversarial Network for Domain Adaptive Semantic Segmentation](#) (Shijian Lu)
- [Error-Bounded Online Trajectory Simplification with Multi-Agent Reinforcement Learning](#) (Gao Cong)
- [Graph Embedding Methods for Multiple-Omics Data Analysis](#) (Wilson Goh)
- [Employee profiling via aspect-based sentiment and network for insider threats detection](#) (Lihui Chen)
- [Utility distribution matters: enabling fast belief propagation for multi-agent optimization with dense local utility function](#) (Bo An)
- [Conditional Anonymous Authentication with Abuse-Resistant Tracing and Distributed Trust for Internet of Vehicles](#) (Lam Kwok Yan)
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More details on our social media platforms this week:



## NISTH EVENTS



NTU INSTITUTE OF  
SCIENCE AND TECHNOLOGY  
FOR HUMANITY

**THINKOUT**

A series of events designed to explore the intersection  
of AI/ML and human-centric problems.

9 November 2021  
10:00am to 11:00am  
[Online]

**REGISTER**

**ALGORITHMS &  
SOCIAL HARM**

  
Wai Fong BOH  
Professor  
Nanyang Business School

  
Andres Carlos LUCCO  
Associate Professor  
College of Innovation

#NISTHThinkOut

**9 Nov 2021; 10:00 AM – 11:00 AM**

**NISTH ThinkOut: Algorithms and Social Harms**, seeks discuss if algorithms are truly the cause of social harm or is it in how it is used. Aside from political controversies, the recent Facebook whistle-blowing and increasing Tick Tock 'tic-like behaviour' has made it evident that 'amplification algorithms' and 'engagement based ranking' affects human behavior and encourages destructive content. **NISTH Fellows – Prof Boh Wai Fong and Assoc Prof Andres Luco** will discuss the issue.

Register: [Here](#)



**19 Nov 2021; 3:00 PM – 6:00 PM**

**Young Global Leaders (YGL)**, Executive Education Module, is organised by NISTH, once again this year, under the theme - *Imagining Technological Future*. The YGLs will be participating in a 5 days online programme that brings them through thought-provoking lectures and workshops on writing, filmmaking and game-making to help bring a fresh perspective to their work towards meaningful solutions for the society. NISTH Fellows are invited to attend the final presentation to interact and network with this carefully selected group of thought-leaders.

Register at: [Here](#)

**3 Dec 2021; 2:00 PM – 3:00 PM**

**NISTH ThinkOut: Genomics and the New Inequalities**, will bring together **NISTH Fellows - Assoc Prof Joanne Ngeow and Asst Prof Ian McGonigle** to discuss the topic from two different viewpoints. Is the Holy Grail of modern medicine, Genomics? While it has significantly altered the way researchers, scientists and clinicians develop diagnostics, therapeutic strategies and treatment options, it has also raised a the concern of inequality. Join the webinar to hear the two perspectives.

Register at: [Here](#)



## EVENTS WITH NISTH FELLOWS

**1 – 3 Nov 2021; 8:30 AM – 5:50 PM**

**Frontiers in Cancer Science 2021**, is in its 13<sup>th</sup> year. Converging the latest cancer discoveries around the world, FCS 2021 promises groundbreaking and innovative insights into cancer research. Join and learn from the foremost cancer experts as they share their finding. NISTH Fellow, Asst Prof Melissa Fullwood, is one of the speakers and Assoc Prof Joanne Ngeow is on the organising committee and will be chairing Session 6.

Register at: [Here](#)



**11 Nov 2021; 6:00 PM – 7:00 PM**

**Emerging challenges for cities in Southeast Asia: Pandemics and Surveillance**, will explore how, systemic and intertwined social and political risks that impact cities and its inhabitants, are being addressed from different disciplinary perspectives, by scholars and policy makers across the social sciences and humanities. **NISTH Fellows and Assoc Director, Hallam Stevens**, will share the stage with Asst Prof Monamie Bhadra Haines (Technical University of Denmark) for the discussion.

Register at: [Here](#)



## PARTNER EVENTS



**8 – 10 Nov 2021; 1:30 PM – 4:15 PM**

SGInnovate's (NISTH's Strategic and Network Partner) Deep Tech Summit is back! The Summit, is Asia's leading conference dedicated to exploring the role of deep science and deeptech innovations on our future economy, and will feature expert conversations and knowledge sharing sessions across 4 tracks: Sustainability, Health and Biomedical Sciences, AgriFood and Advanced Manufacturing.

**Register at: [Here](#)**

## GRANT / CHALLENGE CALLS & OPPORTUNITIES

For assistance in identifying research partners, email us at [NISTH-research@ntu.edu.sg](mailto:NISTH-research@ntu.edu.sg)



### **Climate Change Communication - Research Fellow Position**

A Level B Postdoctoral Research Fellow will be a foundational appointment in the Malaysian Node of the Monash Climate Change Communication Research Hub. Based in Kuala Lumpur and working collaboratively with colleagues in the Node and the Hub, the Fellow will develop and complete a three-year research project of social research.

**For more information: [Here](#)**

Email us at [nisth-events@ntu.edu.sg](mailto:nisth-events@ntu.edu.sg); Website: [www.nisth.ntu.edu.sg](http://www.nisth.ntu.edu.sg)