

ISEE 3MT (システム情報 3MT)

“3MT” means Three Minute Thesis. Ph.D. course students will present their research in three minutes. Today, ten students will come. This is a competition. Please vote for the most impressive presenter. The 1st to 3rd outstanding presenters will receive the awards. Please google “ISEE 3MT” and find the voting site in the HP of ISEE 3MT.

“3MT”とは、Three Minute Thesisを意味します。博士課程の学生が自身の研究を3分間でプレゼンテーションします。本日は10名の学生が登壇します。発表後に投票を行いますので、皆さん、審査をお願いいたします。詳細は「ISEE 3MT」で検索するとHPに投票サイトへのリンクがあります。1位から3位には賞品が贈呈されます。



<https://www.isee.kyushu-u.ac.jp/3mt.html>

投票サイト



3MTについて

1枚のスライドのみを用い、3分間で自分の研究について英語でプレゼンテーションする国際大会です。本学の協定校である、クイーンズランド大学（オーストラリア）で2008年に始まり、今では、85%が90以上の大学が参加している。知名度及び国際性の高いコンペティションとなっています。3MTは、学生の学術研究、プレゼンテーション、及び研究コミュニケーション力を洗練することを目的としています。また、より多くの人に研究を知ってもらえるように、専門分野外の人にも分かる説明することが求められます。

- 九大3MT
- Three Minutes Thesis at the University of Queensland

- > ISEE主催イベント
- > シンポジウム
- > ISEE 国際セミナー
- > 中学生の科学実験教室
- > 先端サマーセミナー
- > 研究活動交流会・説明会
- > システム情報3MT

システム情報3MTについて

目的

九大で実施された3MT (Minutes Thesis) の仕組みも、システム情報科学府在学中の博士課程学生に広め、自身や所属する研究室の学術研究・教育内容の広報に生かしてもらおうと、他とのコラボレーションにつなげることで、さらには、卒業論文説明会時に行うことで、学部3年生の卒業研究発表のための研究室選択に有用な情報提供にも寄与することを目的とします。

期日と場所

- 期日：令和6年3月1日（金） 10:00-10:50
- 場所：総合学習プラザ2階 工学部大講義室

プログラム

Start	End	Title	by	Lab	Note
10:00	10:10	Opening	Prof. Junichi Murata, Dean		
10:10	10:14	Towards High Performance Energy Harvesting Architectures for Sustainable Intelligent IoT	Aalaa Mohamed Abaker Babai	IST Inoue Lab	
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10:30	10:50	Vote			
10:50	11:00	Award celebration & closing			

投票
投票サイトはこちら。

<https://www.isee.kyushu-u.ac.jp/3mt.html>

Vote for ISEE 3MT システム情報 3MT 投票

Please vote here. 投票はこちら

takeshi.nanri@gmail.com アカウントを切り替える

共有なし

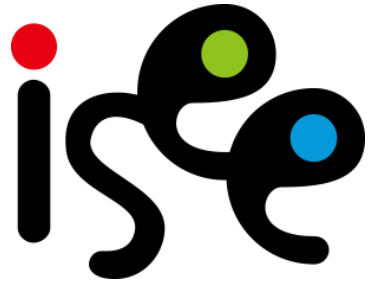
Please choose the impressive presenter. Please vote for 1st to 3rd place. 1位から3位まで投票してください。

	1st 1位	2nd 2位	3rd 3位
Aalaa Mohamed Abaker Babai	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shashank Kotyan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yuta Ishimoto	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forhad Hossain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CAI XIAOJUAN	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

送信 フォームをクリア

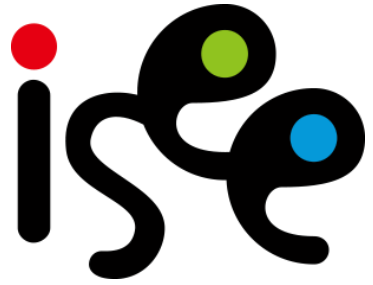
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Google フォーム



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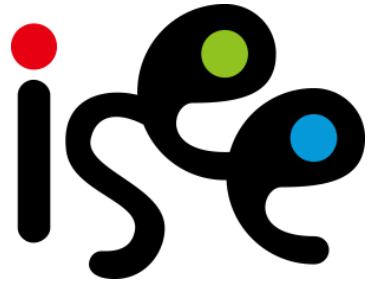
ISEE 3MT

Opening

from

Prof. Junichi Murata

Dean of ISEE



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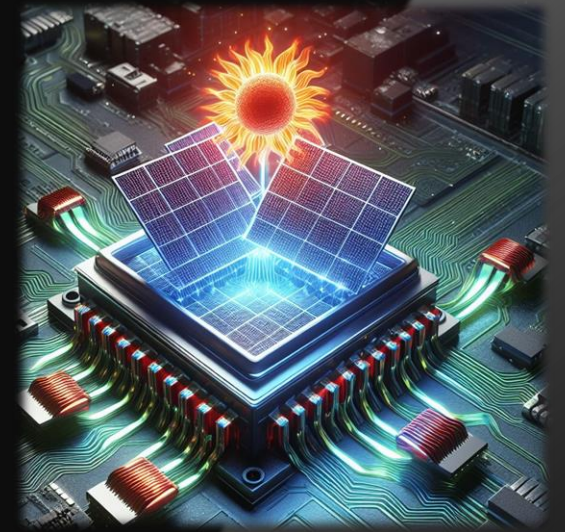
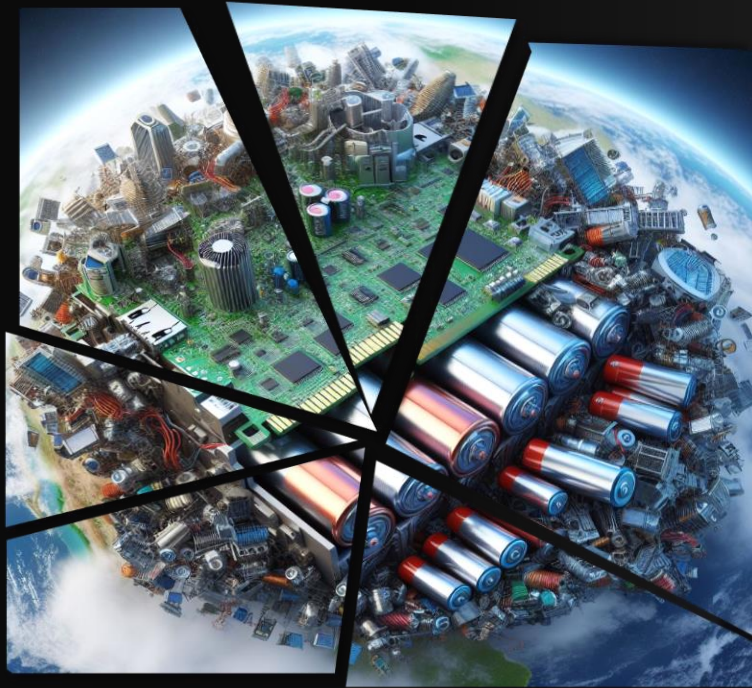


A bright Future 
with billions of
Intelligent IoT

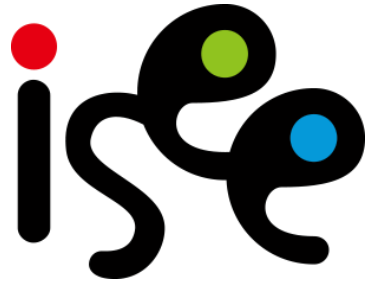
Demands

10000000000...

batteries



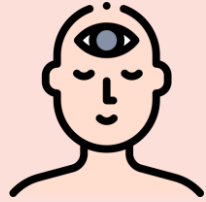
High
Performance
Intermittent
computing
systems



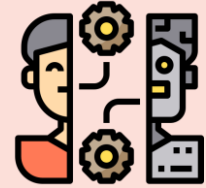
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Let's see this image
through
different eyes!



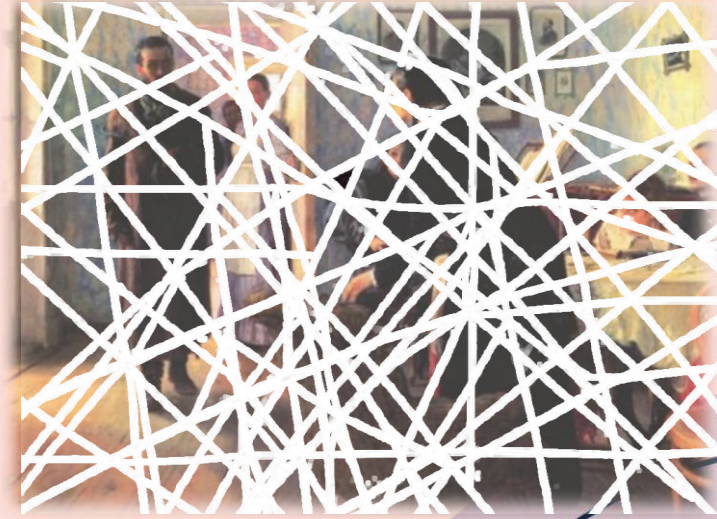
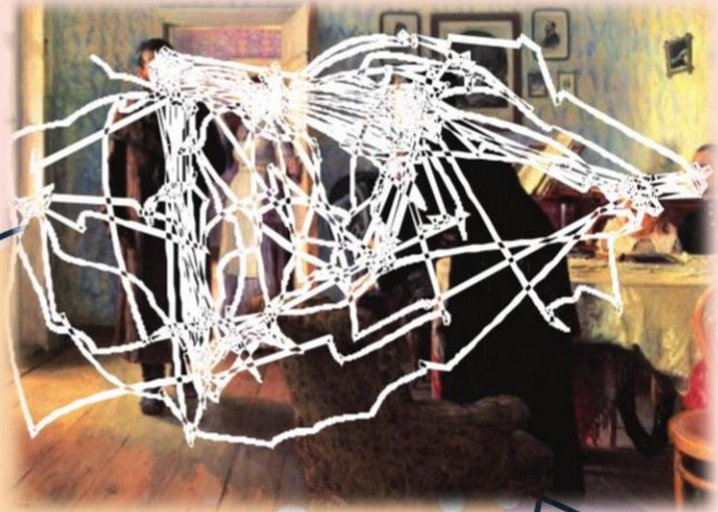
Eyes

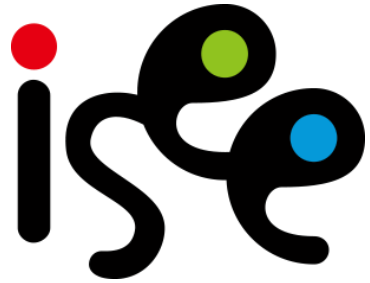


Eyes + Machines



Machines





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Repairs and Breaks Prediction for Deep Neural Networks

Jar (deep neural network)
to be repaired



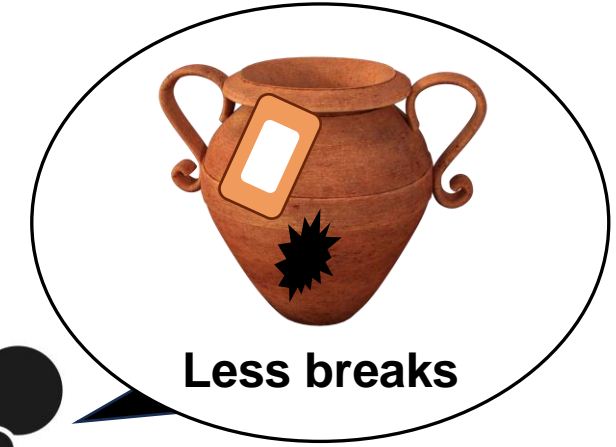
Requirement for
repair



More repairs



Developer A

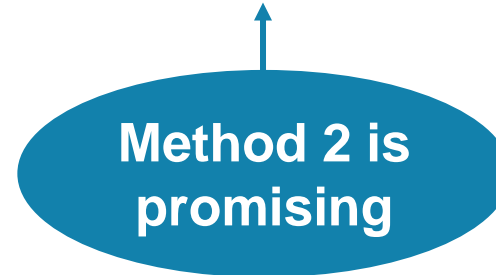


Less breaks

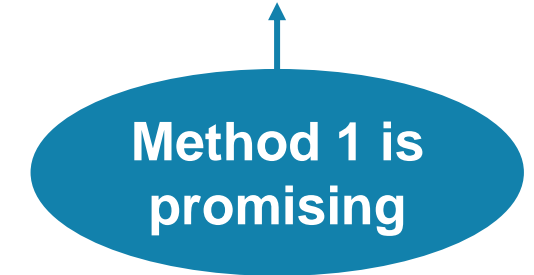


Developer B

Repairs and Breaks
prediction models

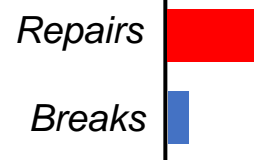


Method 2 is
promising

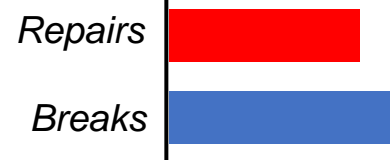


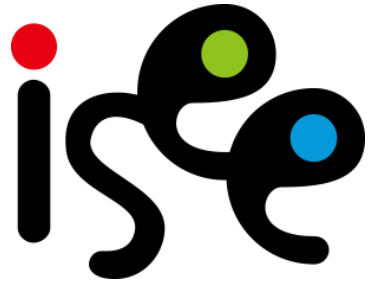
Method 1 is
promising

Repair method 1



Repair method 2





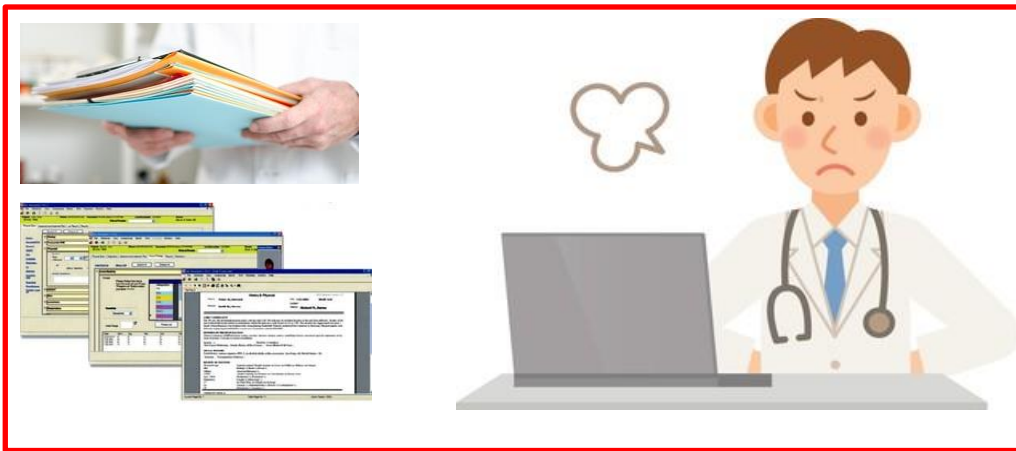
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Visualization of Lifelong Medical History: Empowering Patients and Enhancing Clinical Decision-Making

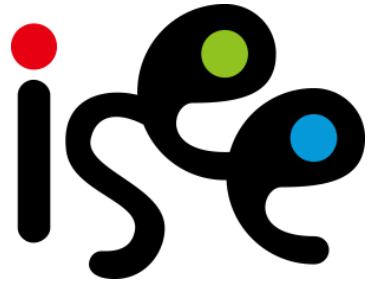
BEFORE



AFTER

Demographic Data		Past medical history collected from different sources							Prediction		
ID		Age	1	2	10	20	30	40	50		
Name		Vaccination	BCG, DTP, Hepatitis B, Hemophilus influenzae B, PCV13, IPV								
Age		Surgery				Urethroplasty-2005, SWL-2008	SWL				
Gender		Communicable diseases					xyz				
Marital Status		Non-Communicable diseases			xyz						
Blood Group		Inherited disease					xyz				
Service Site		Health Checkup-Vital Sign					xyz				
			1987	1988	1997	2007	2017	2027	2037		
			Cured		Not cured but not so risky		Risky		Emergency		

Lifestyle Data	
Smoking	
Alcohol	
Food Allergy	
Insomnia	
Exercise	

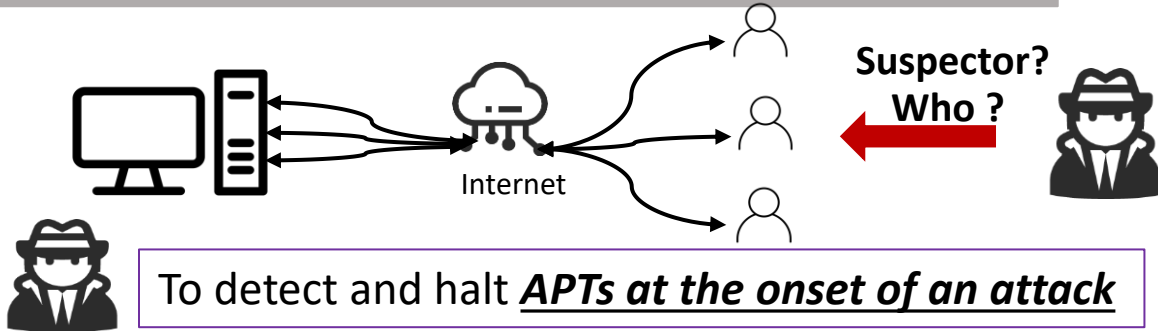


ISEE 3MT Program

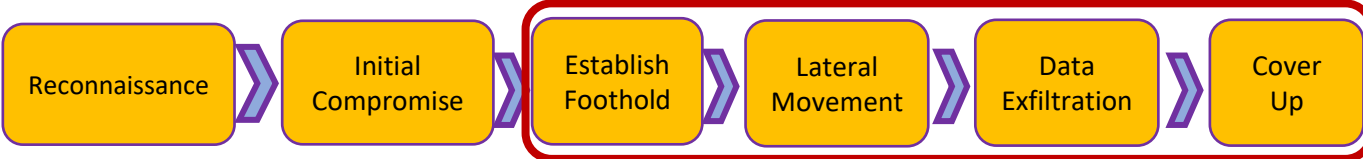
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New Perspectives on Data Exfiltration Detection for Advanced Persistent Threats Based on Ensemble Deep Learning Tree

Q1: What & How to exfiltrate data in APTs?



To detect and halt ***APT***s ***at the onset of an attack***



Little attention has been paid !

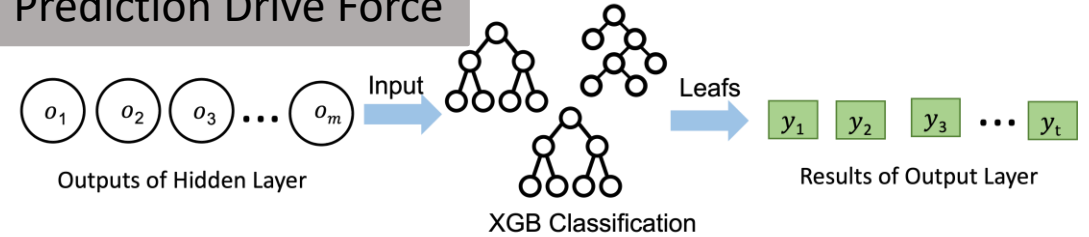
Q2: Research purpose?

To detect data exfiltration of APT attacks within normal traffic

To detect sensitive data exfiltration of APT attacks if the leaked information is split into extremely small chunk sizes in different victim systems?

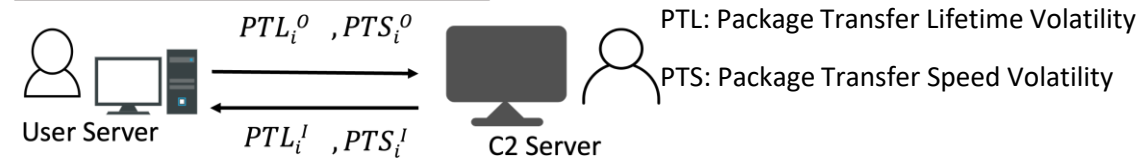
Q3: Detection Mechanisms?

Prediction Drive Force



Prediction using eXtreme Gradient Boosting (XGB) as the Prediction Drive Force

Prediction Drive Force



Exfiltration over a C2 channel

$$PTL_i^1 \leq PTL_i^0$$

$$PTS_i^1 \leq PTS_i^0$$

Exfiltration transfer size limitation

$$PTL_i^1 \geq PTL_i^0$$


$$PTS_i^1 \geq PTS_i^0$$


Voting time

Towards High Performance Energy Harvesting Architectures for Sustainable Intelligent IoT	Aalaa Mohamed Abaker Babai
Eyes and Machines: A Synergistic Approach to Smarter Artificial Intelligence	Shashank Kotyan
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Vote for ISEE 3MT システム情報 3MT 投票

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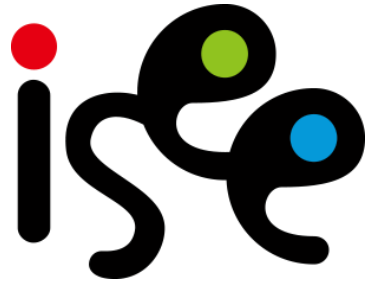
takeshi.nanri@gmail.com [アカウントを切り替える](#) 

 共有なし

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CAI XIAOJUAN	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

送信 フォームをクリア



ISEE 3MT

Award celebration & Closing

from

Prof. Makoto Yokoo