

**Spoof Detection for Automatic Speaker Verification
Kick-Off Meeting
Report**

I. Organizer:

Name:	Kasorn GALAJIT
Position:	Researcher (Project leader)
Institution:	National Electronics and Computer Technology Center

II. Program:

Date: 30-31 May 2023

Venue: De Prime Rangnam Hotel

106/19 Rangnam Road, Thanon Phaya Thai,
Rajthevee, Bangkok 10400 Thailand

Program Agenda:

May 30	09:00 - 09:20	Welcome remarks (Dr. Thepchai, Dr. Nishino)
	09:20 - 09:40	Who's who (self introduction)
		Photo session
	09:40 - 10.00	Project Summary (Dr. Kasorn)
	10.00 - 10.30	NECTEC's research activities + NECTEC introduction (Dr. Surasak)
	10:30 - 11.00	NICT's research activities + NICT introduction (Dr. Xugang)
	11.00 - 11:30	SIIT's research activities + SIIT introduction (Dr. Pakinee)
	11:30 - 12.00	UCSY's research activities +UCSY introduction (Dr. Win pa pa)
	12:00 - 13:30	Lunch
	13:30 - 14:00	UBD's research activities + UBD introduction (Dr. Yassin)
	14:00 - 14:30	JAIST's research activities + JAIST introduction (Prof. Unoki)
	14:30 - 15:00	Spoof detection (JAIST research sharing) (Dr. Candy)
	15:00 - 15:30	Spoof detection (JAIST research sharing) (Mr. Li Kai)
	15:30 - 16:00	Contribution of timbre and shimmer features to deepfake speech detection (Mr. Norranat)
16:00 - 16:30	Discussion + Q/A	
May 31	09:30 - 10.00	Deepfake speech detection based on pathological speech processing (Mr. Anuwat)
	10.00 - 10:30	Replay attack detection based on voice and non-voice sections for speaker verification (Mr. Ananda + Ms. Patthranit + Mr. Pannathorn)
	10:30 - 10:45	Break
	10:45 - 12:00	Research activity plan and contribution of parties
	12:00 - 13:30	Lunch
	13:30 - 14:00	Budget plan
	14:00 – 14.15	Break
	15:00 - 15:15	Group discussion
15:15 - 16:00	Meeting conclusion	

III. Participants:

No.	Name	Organization
1	Masashi Unoki	JAIST
2	Candy Olivia Mawalim	JAIST
3	Kai Li	JAIST
4	Anuwat Chaiwongyen	JAIST - SIIT
5	Waree Kongprawechnon	SIIT
6	Pakinee Aimmanee	SIIT
7	Khaing Zar Mon	SIIT
8	Ananda Garin Mills	SIIT
9	Pannathorn Sathirasattayanon	SIIT
10	Patthranit Kaewcharuay	SIIT
11	Mr. Norranat Songsriboonsit	SIIT
12	Xugang Lu	NICT
13	Sheng Li	NICT
14	Hisanori Nisino	NICT-Asia
15	Kasorn Galajit	NECTEC
16	Jessada Karnjana	NECTEC
17	Suradej Duangpummet	NECTEC
18	Surasak Boonkla	NECTEC
19	Thepchai Supnithi	NECTEC
20	Rinnapatch Khongsuksipas	ICOS-NECTEC
21	Kusumaphorn Sompong	ICOS_NECTEC
22	Widhyakorn Asdornwised	CU
23	Win Pa Pa	UCSY
24	Win Lai Lai Phyu	UCSY
25	Myat Aye Aye Aung	UCSY
26	Dk Hayati Pg Hj Mohd Yassin	UBD

IV. Summary of the activities corresponding to the objectives

A. Objective of this event

In order to start project smoothly, we propose to organize a project kick-off meeting which its objectives are as follows.

1. To introduce all participants the project details.
2. To present/demonstrate some examples of the spoof detection technique and related work of project members.
3. To discuss the contributions from JAIST, SIIT, and UCSY.
4. To brainstorm and discuss the work breakdown and project plan.

B. Activities corresponding to the objective
The Summary of the objective and its status

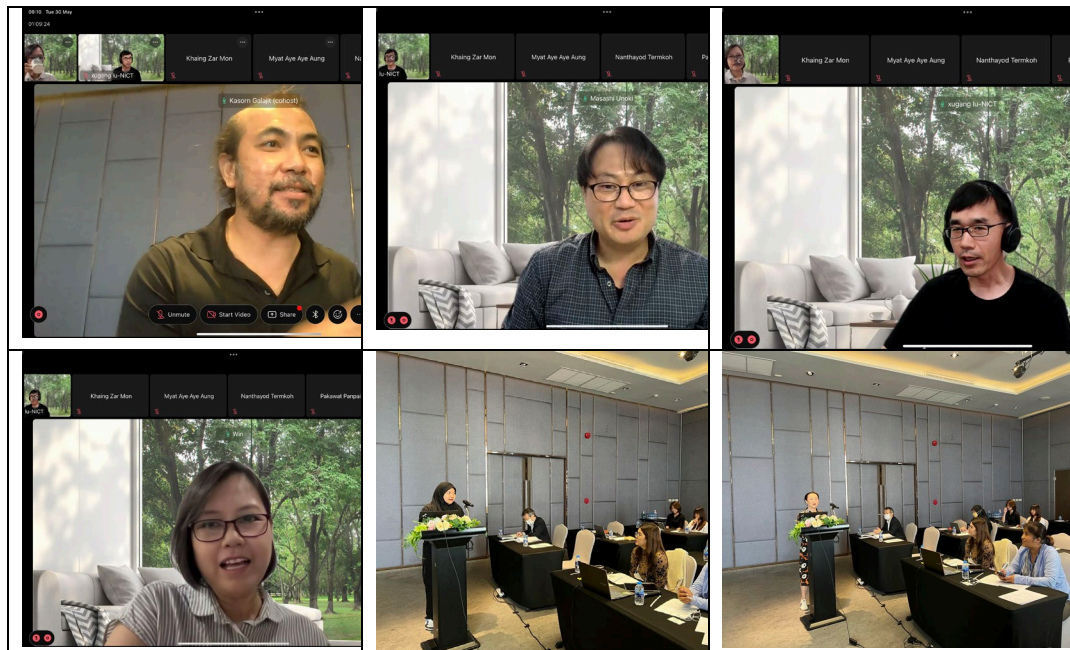
Objective	Status
1. To introduce all participants the project details	Done
2. To present/demonstrate some examples of the spoof detection technique and related work of project members.	Done
3. To discuss the contributions from JAIST, SIIT, and UCSY.	Done
4. To brainstorm and discuss the work breakdown and project plan.	Done

Activities corresponding to the objective

1. Objective 1 - To introduce all participants to the project details.

Sub-objective - Members know each other

We have an activity self – introduction in that members introduce themselves with their research interests. Therefore, members get to know each other more (Hybrid for onsite and online)



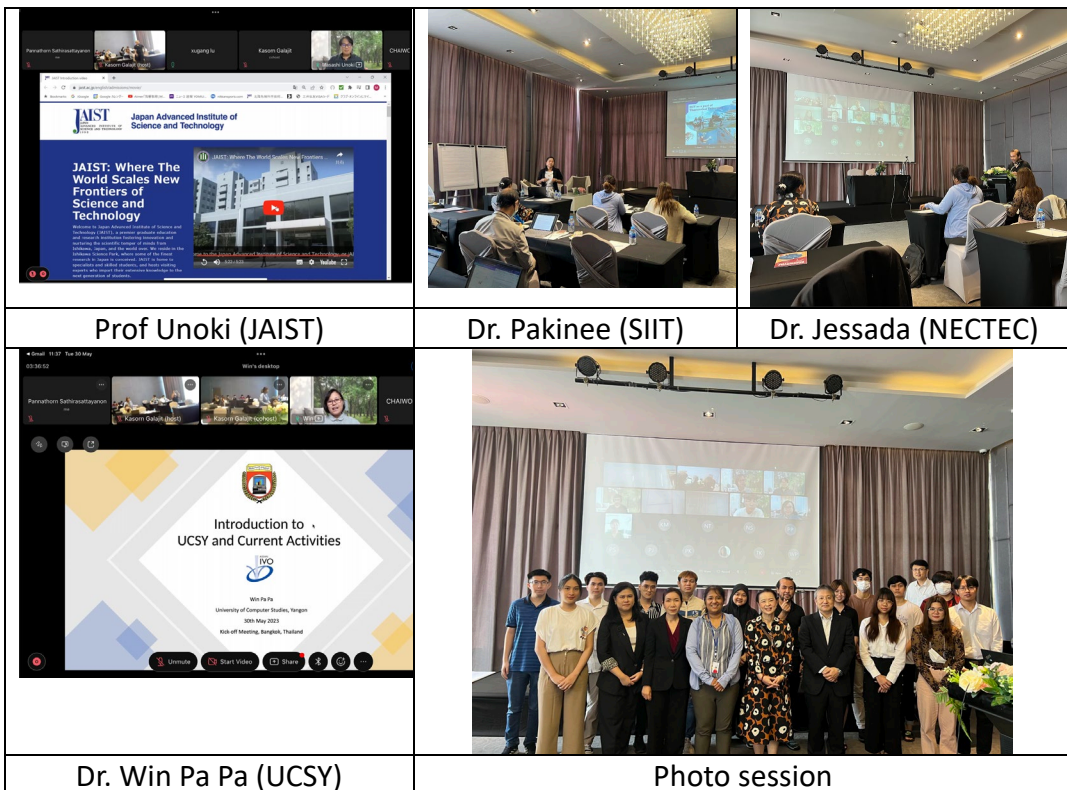
Sub-objective - Members know about the project

The project leader introduces the scope of the project to members and on-going activities. She presented the project detail, expected output from this kick-off meeting to the audience.



Sub-objective - Members know about the parties in the project

Representative from each institute introduce about the institute and the research from each party in general to let members know more about parties in project



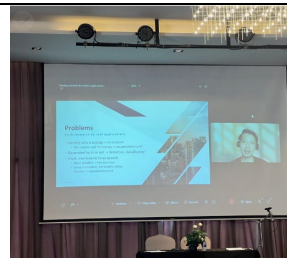
Representatives from each presented their projects related to our IVO project and their contributions to this project.

- JAIST Prof Masashi Unoki
- NECTEC Dr. Jessada karnjana
- UCSY Dr. Win Pa Pa
- SIIT Dr Pakinee Aimmanee
- NICT Dr. Xugang Lu
- UBD Dr Yassin

2. Objective 2- To present/demonstrate some examples of the spoof detection technique and related work of project members.

There are five research sharing from project member as follow

- Anonymization (JAIST research sharing) (Dr. Candy)
- Seepfake Detection (JAIST research sharing) (Mr. Li Kai)
- Contribution of timbre and shimmer features to deepfake speech detection (Mr. Norranat)
- Deepfake speech detection based on pathological speech processing (Mr. Anuwat)
- Replay attack detection based on voice and non-voice sections for speaker verification (Mr. Ananda + Ms. Patthranit + Mr. Pannathorn)
- Speech research in NECTEC (Dr. Surasak)

		
<p>Dr Candy</p>	<p>Mr Kai Li</p>	<p>Mr Norranat</p>
		
<p>Mr Anuwat</p>	<p>Mr. Pannathorn</p>	<p>Dr. Surasak</p>

3. Objective 3- To discuss the contributions from JAIST, SIIT, and UCSY.

We have activity group discussion as shown in picture.



4. Objective 4- To brainstorm and discuss the work breakdown and project plan.

We have activity group discussion for the work breakdown and project plan.

C . Describe if there are changes in the work plan, project schedule, budget allocation, etc. from the initial proposal.

The work plan, project schedule, budget allocation, etc. are remain the same from the initial proposal.

V Work breakdown

There are 6 main tasks in this project.

1. To check significant of speech features for spoof detection (including pathological feature)
2. To optimal percentage of voice and non-voice for each feature
3. To study spoof technique
4. To minimize detection error
5. To improve an accuracy of ASV
6. To study multi-lingual spoof detection

The contributions to this project from all parties are shown in the table below.

NECTEC	NECTEC take responsible for all tasks
JAIST	JAIST take responsible mainly on Task 1, 4 and 5
SIIT	SIIT take responsible mainly on Task 1, 2,4 and 5
NICT	NICT take response of task 3 to since NICT are expert on voice recognition system and TTS
UCSY	USCSY take responsible mainly on Task 1,2, 4 and 5, where 6 is an option
UBD	UBD take responsible mainly on Task 1, 4 and 6 is an option
CU	CU take response on task 1 and 3
ITB	ITB take response on task 1, 3, and 4

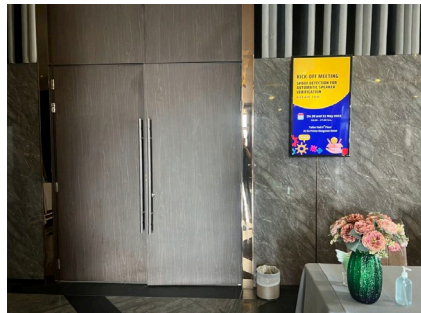
VI Budget allocation.

We planned the budgets for the meeting, workshop, publication and presentation, etc.

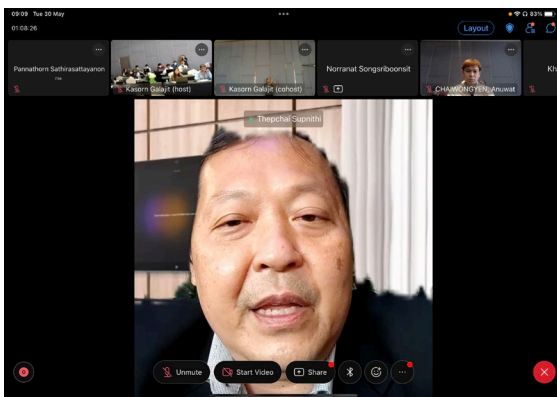
VII. Action Plan

We discussed and summarized the action plan.

V. Others



kick-off meeting



Welcome remark from Dr. Thepchai Supnithi (NECTEC), Leader of Artificial Intelligence network research group and Hisanori Nisino (NICT Asia)

