TAIST Tokyo Tech Opening Ceremony and Orientation 2017















TAIST Tokyo Tech ICTES Orientation

(10th batch ICTES students)

TAIST Tokyo Tech ICTES Program
Thanaruk Theeramunkong
Waree Kongprawechnon
Miti Ruchanurucks
2 August 2017

Welcome to TAIST Tokyo Tech

Congratulation to join TAIST Tokyo Tech Program and Welcome to TAIST Tokyo Tech 2017

Structure of TAIST – ICTES

Executive and Program Director



Dr. Omjai Saimek I
NSTDA Vice President I
Acting TAIST Executive Director



Dr. Thanaruk Theeramunkong ICTES Program Director

Steering Committee Advisory









Tsuyoshi Isshiki Hiroaki Kunieda _{Kanokvate} Akinori Nishihara Tungpimolrut

Steering Committee Members

SIIT



Dr. Thanaruk T.



Dr. Waree Kongprawechnon



Tokyo Tech



Prof. Manabu Okumura Prof. Nobuhiko Sugino TAIST Tokyo Tech ICTES Director



NECTEC



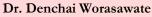
Dr. Teera Phatrapornnant



KU



Dr. Miti Ruchanurucks



Dr. Kamol Kaemarungsi

NSTDA (ICTES)



Mrs. Chantira Mongkolwai Division Director Graduate & Professional Development Division



Ms. Sutisa Apisiridej Human Resources Development Manager, NECTEC

Tokyo Tech Office



Prof. Nobuaki Otsuki Managing Director (2017-present) Tokyo Tech Thailand Office



Dr. Damrongkiat Ratanaamornpin TAIST Tokyo Tech Office Manager (Thai)

Students in ICTES Program







B1: 26 students (2008)



B3: 28 students (2010)







B4: 17 students (2011)

B5: 24 students (2012)

B6: 28 students (2013)







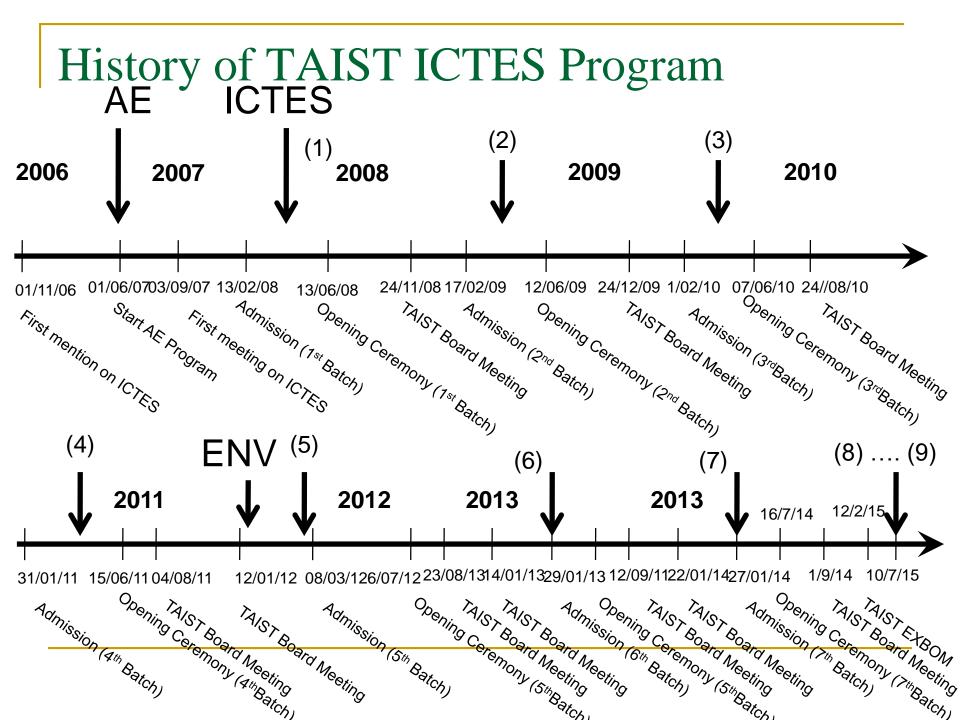
Students	222
Graduates	134

B10: 23 students (2017)

B7: 15 students (2014) B8: 20 students (2015) B9: 18 students (2016)

History of TAIST ICTES Program

September 2001	MOU between Tokyo Tech and NSTDA.		
October 2002	Tokyo Tech Office (Thailand) established in NSTDA.		
November 2005	Prof. Dr. Masuo Aizawa, President of Tokyo Tech discusses with senior officials from NSTDA on establishment of a "joint graduate institute."		
April 2006	First visit by the AE group of Tokyo Tech to Thailand		
July 2006	Workshop at Tokyo Tech by the Biology group.		
August 2006	Automotive Engineering Conference at NSTDA.		
August 2006	HRH Princess Sirindhorn visited Tokyo Tech.		
November 2006	Forum on EnvE and ICT held at Tokyo Tech.		
December 2006	Signing of "Sub-agreement of the Memorandum of Understanding on the Cooperation in the First Phase of a Joint Graduate Institute" by Tokyo Tech, NSTDA, KMITL and SIIT.		
June 2007	The first program of TAIST - Tokyo Tech, the AE Program, started.		
September 2007	Grand Opening Ceremony at Thailand Science Park.		
June 2008	ICTES Program started.		
September 2009	First Graduation Ceremony.		
June 2012	Advanced and Sustainable Environmental Engineering started.		
August 2012	Second Phase MOU signed.		
April 2015	HRH Princess Sirindhorn visited Tokyo Tech.		
July 2015	First Basic & Adv. Eng. for Automotive Course organized by JSAE		
June 2016	Revision of existing graduate curriculums in cooperating Rail Transportation pedagogy		
Newsphan 2016	Cocond Booic & Adv. Eng. for Automotive Course ergenized by ICAE		



Overall Status of ICTES Students

	B 1	B 2	B 3	B 4	B 5	B6	B7	B8	B1-B8	B9	B10	Total
# students	26	22	28	17	24	28	15	20	180	19	23	222
Graduate	22	19	23	13	20	19	9	9	134	0	0	134
On Process	0	0	0	1	4	8	6	10	29	18	23	69
Resign	4	3	5	3	0	1	0	1	17	1	0	18

Continuing to Ph.D.	Total	Graduated
First Batch	10	5
Second Batch	5	1
Third Batch	6	3
Fourth Batch	5	1
Fifth Batch	3	-
Sixth Batch	5	-
Seventh Batch	2	-
Eight Batch	2	-
Total	38	10





















Graduates to Ph.D. program

_			_			
	1	(B01)	Mr.	Kobkrit Viriyayudhakorn	(JAIST, March 2010) - Graduated 2013	Graduated
	2	(B01)	Mr.	Sumeth Yuenyoung	(Tokyo Tech, Oct 2010) - Graduated 2015	Graduated
	3	(B01)	Mr.	Konlakorn Wongpatikaseree	(JAIST, Oct. 2010) – Graduated 2014	Graduated
	4	(B01)	Mr.	V-ris Jaijongrak	(Tokyo Tech, Oct 2010) - Pending back to Thai	
	5	(B01)	Ms.	Supawan Kumpituck	(Tokyo Tech, Oct 2010) - Pending back to Thai	
	6	(B01)	Mr.	Apimuk Muangkasem	(JAIST, Oct. 2010) – Graduated 2014	Graduated
	7	(B01)	Ms.	Sirinya Tabsombat	(Tokyo Tech, Oct 2010)	
	8	(B01)	Ms.	Arunee Ratikan	(JAIST, April 2011) – Graduated 2015	Graduated
	9	(B01)	Mr.	Surasak Boonkla	(SIIT-JAIST Ph.D., 2011)	
	10	(B01)	Mr.	Sorasak Khoomboon	(Ph.D. KU, Nov. 2013)	
	11	(B02)	Mr.	Suthum Keerativittayanun	(Ph.D. SIIT+JAIST, Nov. 2011)	
	12	(B02)	Ms.	Pimolluck Jirakunkanok	(JAIST, Oct. 2012)	Graduated
	13	(B02)	Mr.	Arucha Rungchokanun	(Ph.D. KU, April 2012)	
	14	(B02)	Mr.	Tossaporn Srisooksai	(Tokyo Tech, Oct. 2013)	
	15	(B02)	Mr.	Pairoj Kajoijilertsakul	(Ph.D. KMITL, Aug. 2016)	
	16	(B03)	Mr.	Phiranuphon Meksiarun	(Kwansei Gakuin U., Apr. 2012) - Graduated 2015	Graduated
	17	(B03)	Mr.	Pakpoom Patompak	(Ph.D. SIIT+JAIST, Nov. 2012)	
Ī	18	(B03)	Mr.	Prarinya Siritawawan	(JAIST, Oct. 2012) - Graduated 2016	Graduated
Ī	19	(B03)	Ms.	Pimnapa Atsawintarangkun	(JAIST, Oct. 2012) - Graduated 2016	Graduated
Ī	20	(B03)	Mr.	Amornrat Khongma	(Ph.D. KU, June 2013)	
Ī	21	(B03)	Mr.	Sakharin Buachan	(Tokyo Tech, Oct. 2013)	
Ī	22	(B04)	Mr.	Piyoros Tungthamthiti	(JAIST, Oct. 2013) - Graduated 2016	Graduated
	23	(B04)	Mr.	Akkharawoot Takhom	(SIIT-JAIST Ph.D., 2014)	
	24	(B04)	Mr.	Sarun Chattunyakit	(MEXT, Hokkaido U., 2014)	
	25	(B04)	Mr.	Kitti Chumkesornkulkij	(MEXT, Tokyo Tech, Oct. 2015)	
	26	(B04)	Ms.	Warunya Wunnasri	(MEXT, Hitoshima University, 2015)	
	27	(B05)	Mr.	Pawin Prasertsakul	(SIIT-JAIST Ph.D., 2014)	
	28	(B05)	Ms.	Pikul Vejjanugraha	(SIIT-JAIST Ph.D., 2014)	
	29	(B05)	Mr.	Piyawat Sukhummek	(USA, 2018)	
	30	(B06)	Mr.	Sorn oksatra	(SIIT-JAIST Ph.D., 2015)	
	31	(B06)	Mr.	Sorawit Stapornchaisit	Tokyo Tech IGP (A) program (Koike) (2015)	
	32	(B06)	Mr.	Pongsate Tangseng	(MEXT, Tohoku University, Ph.D., 2015)	
	33	(B06)	Mr.	Poompat Rattanasuwan	(Tokyo Tech, 2016)	
	34	(B06)	Ms.	Raveerat Jaturapitportchai	(Tokyo Tech, 2016)	
-[35	(B07)	Lt. JG.	Phat Jotikabukkana,	EFS Scholarship, SIIT	
		(B07)		Ali Sadeghi Ardakani	Tohoku University, Japan	
	37	(B08)	Mr.	Pornthep Sarakon	Kyushu Institute of Technology, Japan	
	38	(B08)	Ms.	Waranrach Viriyavit	SIIT-Chiba Dual Degree, Japan	
-					· · · · · · · · · · · · · · · · · · ·	

38 Ph.D. (10 graduated)

10 first-batch
5 second-batch
6 third-batch
5 fourth-batch
3 fifth-batch
5 sixth-batch
2 seventh-batch
2 eighth-batch

10 Ph.D. graduates

ICTES First Batch to Ph.D. (10 Ph.D Scholarship)

- Kobkrit Viriyayudhakorn (JAIST, March 2010)
- Sumeth Yuenyoung (Tokyo Tech, Oct 2010)
- V-ris Jaijongrak (Tokyo Tech, Oct 2010)
- Supawan Kumpituck (Tokyo Tech, Oct 2010)
- Sirinya Tabsombat (Tokyo Tech, Oct 2010)
- Konlakorn Wongpatikaseree (JAIST, Oct 2010)
- Apimuk Muangkasem (JAIST, Oct 2010)
- Arunee Ratikan (JAIST, April 2011)
- Surasak Boonkla (SIIT-JAIST Ph.D., 2011)
- Sorasak Khoomboon (Ph.D. KU, Nov. 2013)

10 Ph.D. Candidates (first batch)





















ICTES Second Batch Acheivement

- Pimolluck Jirakunkanok (Ph.D at JAIST, 2012)
- Suthum Keerativittayanun (Ph.D. SIIT + JAIST, 2012)
- Tossaporn Srisooksai (Ph.D. at Tokyo Tech, 2013)
- Arucha Rungchokanun (KU, Ph.D., 2012)
- Pairoj Kajoijilertsakul (Ph.D. KMITL, Aug. 2016)











5 Ph.D. Candidates (second batch)

ICTES Third Batch Achievement

- Mr. Phiranuphon Meksiarun (Kwansei Gakuin U., Apr. 2012)
- Mr. Pakpoom Patompak (Ph.D. SIIT+JAIST, Nov. 2012)
- Mr. Prarinya Siritawawan (JAIST, Oct. 2012)
- Ms. Pimnapa Atsawintarangkun (JAIST, Oct. 2012)
- Mr. Amornrat Khongma (Ph.D. KU, June 2013)
- Mr. Sakharin Buachan (Tokyo Tech, Oct. 2013)













6 Ph.D. Candidates (third batch)

ICTES Fourth Batch Achievement



Piyoros Tungthamthiti (Ph.D at JAIST, 2013)



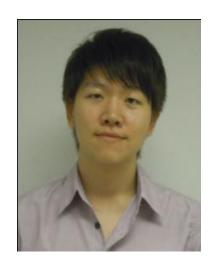
Akkharawoot Takhom JAIST-NECTEC-SIIT Dual Degree, 2014



Sarun Chattunyakit MEXT 2014 Hokkaido University

6 Ph.D. Candidates (fourth batch)

ICTES Fourth Batch Achievement



Kitti Chumkesornkulkij (MEXT, Tokyo Tech, 2015)



Settaporn Sriwilai (MEXT, Hitoshima University, 2015)



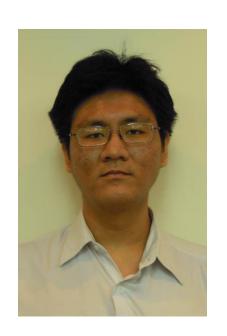
Warunya Wunnasri MEXT 2015 (Hiroshima University)

6 Ph.D. Candidates (fourth batch)

ICTES Fifth Batch Achievement



Pikul Vejjanugraha (JAIST-SIIT Dual Degree, 2014)



Pawin Prasertsakul
(JAIST-SIIT Dual Degree, 2014)



Piyawat Sukhummek (USA, 2018)

3 Ph.D. Candidates

ICTES Sixth Batch Achievement

- Mr. Sorn oksatra (SIIT-JAIST Ph.D., 2015)
- Mr. Sorawit Stapornchaisit (Tokyo Tech, 2015)
- Mr. Pongsate Tangseng (MEXT, Tohoku University, 2015)
- Mr. Poompat Rattanasuwan (Tokyo Tech, 2016)
- Ms. Raveerat Jaturapitportchai (Tokyo Tech, 2016)











5 Ph.D. Candidates (third batch)

ICTES Seventh Batch Achievement



Phat Jotikabukkana EFS Scholarship, SIIT



Ali Sadeghi Ardakani Tohoku University, Japan

2 Ph.D. Candidates

ICTES Eighth Batch Achievement



Pornthep Sarakon

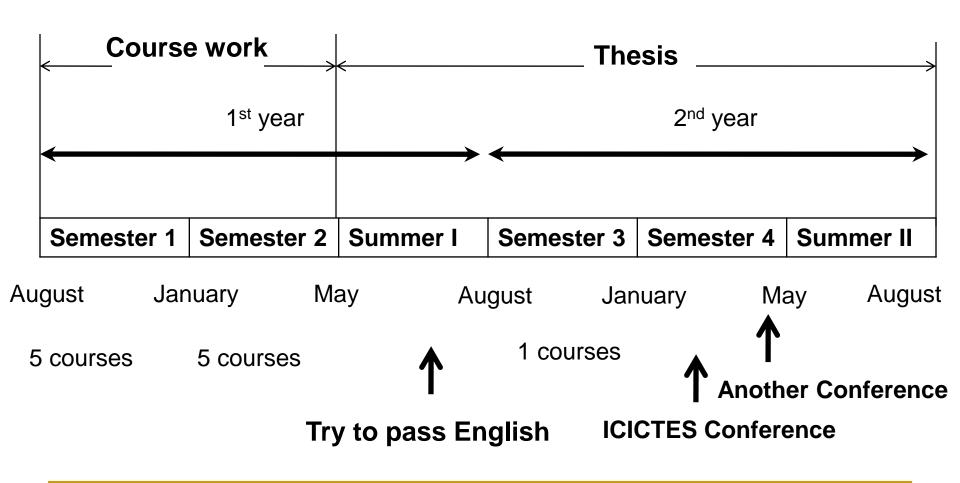
Kyushu Institute of Technology, Japan



Waranrach Viriyavit SIIT-Chiba Dual Degree, Japan

2 Ph.D. Candidates

Study Plan



Study Plan (first year, first semester)

Start from August 2017

ES 605	Research Methodology	2(2-0-4)
ICT 700	Software for Embedded Systems	3(3-0-6)
ICT 720	Hardware for Embedded Systems	3(3-0-6)
ICT xxx	Technical Elective	3(x-x-x)
		11

ICT 740 Communication	3(3-0-6)
ICT 750 Signal Processing	3(3-0-6)

Study Plan (first year, second semester)

ICT 600	Computational Mathematics	3(3-0-6)
ICT 710	Software Design Exercise For Embedded Systems	3(2-3-4)
ICT 730	Hardware Design Exercise For Embedded Systems	3(2-3-4)
XXX xxx	Technical Elective	3(x-x-x)
		10

Intelligence Processing	3(3-0-6)
Environment/Control Systems	3(3-0-6)

Study Plan (second year)

ES 806	Seminar	1(0-3-0)
ICT 898	Master Thesis	9
	Total	9
		9

ICT 898	Master Thesis	6
	Total	6
-		

- The students need to register 15 thesis credits in the 3rd and the 4th semesters.
- Submit progress report and present the progress presentation every semester.
- Present your proposal in August of the 2nd year.
- Submit at least two int'l conference papers.
- Defense thesis within March (May) of the 2nd year.

6

Lecture Series (Face-to-Face)

First semester: 8/07/2017 - 12/01/2017

Intensive: 8/07/2017 - 9/22/2017 Distant: 9/25/2017 - 12/1/2017

8/07-8/11	3.3	Information		Prof. Katsunori	Assoc. Prof. Komwut
	(DL)	Communication Network		Yamaoka	Wipusitwarakun)
8/14-8/18					
8/21-8/25	1.1 (FTF)	Algorithm and Software Design	9:00- 12:00	Prof. Shuichi Ueno	Asst. Prof. Dr. Dusit Thanapatay
8/28-9/01	3.1 (FTF)	Information Theory and Coding Theory	9:00- 12:00		Asst. Prof. Dr. Somsak Kittipiyakul
9/04-9/08	3.2 (FTF)	Wireless Communication Engineering	9:00- 12:00		Asst. Prof. Dr. Somsak Kittipiyakul
9/11-9/15	2.1 (FTF)	Basic Digital System Design	9:00- 12:00	Assoc. Prof. Atsushi Takahashi)	Asst. Prof. Dr. Dusit Thanapatay
9/18-9/22	2.3 (FTF)	VLSI Design Methodologies	9:00- 12:00	Nakahara	Asst. Prof. Dr. Woradorn Wattanapanitch
ТВА	2.2 (FTF)	Processor Architecture Design	9:00- 12:00		Asst. Dr. Miti Ruchanurucks

Lecture Series (Non Intensive)

First semester: 8/07/2017 - 12/01/2017

Intensive: 8/07/2017 - 9/22/2017

Distant: 9/25/2017 - 12/1/2017

Mon	9/25 - 12/1	1.2 (DL)		Embedded Software Design Techniques	8:45 - 10:15	Isshiki	Asst. Prof. Dr. Denchai Worasawate (fengdcw@ku.ac.th)
Mon	9/26 - 12/2	FTP	_	Research Methodology & Seminar	13:00-15:00	Asst.Prof. Siriroj Sirisukprasert	
Tue	9/26 - 12/2	1.3(DL)		Real-time System Design	9:00- 12:00		Dr. Nguyen Duy Hung
Thu	9/26 - 12/2	4.1 (DL)		Digital Signal Processing Theory	8:45 - 10:15	Prof. Dr. Takao Kobayashi	Dr. Phunsak Thiennviboon
Thu	9/26 - 12/2	4.3 (FTF)	1	Video Processing	10:30-12:00	Assoc. Prof. Dr. Toshiaki Kondo	
Fri.	9/26 - 12/2	4.2 (DL)		Speech and language processing	13:05 - 14:35		Prof. Dr. Thanaruk Theeramunkong

Lecture Series (Second Semester)

- Second semester: 1/08/2018 5/4/2018
- Intensive: 1/08/2018 3/23/2018
- Distant: 1/08/2018 3/23/2018
- Intensive:
- 1/08-1/12 6.2 Environment Control Systems (Prof. Shigeru Kakumoto)
- 1/15-1/19 5.3 Artificial Intelligence (Prof. Itsuo Kumazawa)
- 1/22-1/26 6.3 Power Electronics Systems (Prof. Fujita)
- 2/26-3/02 5.1 Human Interface (Prof. Koike, Prof. Hasegawa)
- 3/05-3/09 5.2 Human Information Processing (Prof. Kaneko)
- 3/12-3/16
- 3/19-3/23
- ___

Research Activities and Others (Overview)

Apply for Scholarship (TGIST) Jan-Feb

Special SeminarSep. – Oct.

NECTEC laboratory visit
 October

Application to Tokyo Tech November

ICICTES conference
March

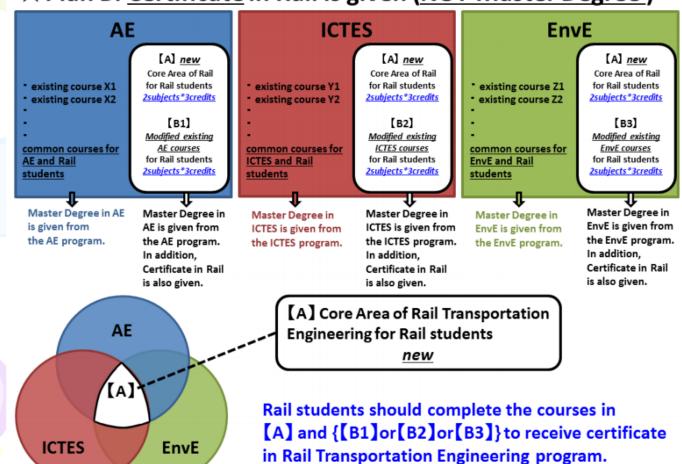
Company visitMay

Sports dayJuly

Railway Curriculum

 SW for Embedded System will be modified to include railway

★ Plan B: Certificate in Rail is given (NOT Master Degree)



Assistants for Registration/Scholarship/others

SIIT

- Ms. Cholthicha Pradidkwan (Registration)
 - Thesis budget, 02-501-3505(-20) ext. 5018
 - ahe@siit.tu.ac.th
- Ms. Naratsita Trirathanun
 - Academic, 02-501-3505(-20) ext. 5025
 - naratsita@siit.tu.ac.th
- Ms. Waraporn Thongthua
 - Scholarship
 - 02-986-9013 (ext. 1401) or
 - 02-501-3505(-20) 4401 (BKD)
 - wara@siit.tu.ac.th







Assistant for Registration/Scholarship/Others

KU

- Pornpavee Kurdkor (พรปวีณ์ เกิดกอ)
- zaakuu@hotmail.com;
- 02-942-8555 (ext. 1590)



NSTDA Staffs

- Ms. Natcha Wangsavibool (Prang) (natcha.wangsavibool@nstda.or.th)
- Ms. Chotirote Bunnun (Cho)(Chotirote.Bunnun@nstda.or.th)
- Ms. Cheeraporn Wongwichit (Kung) (cheeraporn@nstda.or.th)
- Ms. Nannaphat Sujit (Kaijeaw) (nannaphat.sujit@nstda.or.th)

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Tokyo Tech Staffs

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Ms. Jitlada Judto (Palm) (jitlada@titech.in.th)





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Ms. Chayanan Lertjarupong

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(chayanan@nstda.or.th)





Study Plan (I)

Student Plan		Se	me	ster		2^{nd}	Semester			Summer		
	8	9	10	11	12	1	2	3	,	4 5	6	7
First Year												
First Semester												
1) Take courses												
2) Attend Orientation and Senior Meeting		L										
3) Attend STKS Training and visit NECTEC Laboratories												
4) Survey your Laboratory or Research at your interest												
First Semester Break												
1) Sit in or join Laboratory at your interest												
2) Fill First progress report (Appendix A)												
Second Semester												
1) Take courses												
2) Sit in and do research works in your laboratory												
3) Seminar Course requirement												
3.1 Find and inform PD you research topics												
3.2 Select your thesis advisor												
if possible Tokyo Tech and NSTDA advisors too)												
3.3 Review related literatures and write research proposal												
3.4 Submit your Second progressive report to PD (Appendix B)												
4) Submit Thesis Title Submission form (Appendix C)												
First Summer Break												
1) Do your experiment and research												

Study Plan (II)

tudent Plan		3 rd Semeste				4 th Semester			er	Sun	nme	ner	
	8	9	10	11	12	1	2	3	4	5	6	7	
Second Year									•				
Third Semester													
1) Do your experiment and research													
2) Submit your Third progressive report to PD													
(Appendix D) and present a progress to your advisor													
committee													
Forth Semester													
1) Do your experiment and research													
2) Publish your work in one of NJ, IJ or IC													
3) Compose your thesis													
4) Pass English proficiency requirement													
5) Submit your Forth progressive report to PD													
(Appendix E) and present a progress to your advisor													
committee													
6) Finish your thesis, perform Thesis Examination and													
submit the Thesis Examination Submission Form													
7) Submit Master's Candidate Form (Appendix F)													
Second Summer Break (for one who graduate in summer)													
1) Finish your thesis, perform Thesis Examination and													
submit the Thesis Examination Submission Form													
2) Submit Master's Candidate Form (Appendix F)													

10 Year Anniversary Seminar





Towards Global Education and Research Collaboration for Thailand 4.0

August 21, 2017 Chaophya Park Hotel Grand Ratchada (5th Floor)



Dr. Narong Sirilertworakul, President of NSTDA

Prof. Dr. Yoshinao Mishima, President of Tokyo Institute of Technology **Opening Remarks**

Dr. Atchaka Sibunruang, Minister of Science and Technology

Certificate Ceremony for the Contributor & TAIST Tokyo Tech Sponsor

10 Year Anniversary TAIST Tokyo Tech Symposium

Keynote Speech (I)

EEC (Eastern Economic Corridor) Development Roadmap

Dr. Kanit Sangsubhan, Secretary-General Eastern Economic Corridor Office, Thailand

Keynote Speech (II)

130th Year Thailand-Japan Relations (Tentative)

H.E. Mr. Shiro Sadoshima, Ambassador Extraordinary and Plenipotentiary of Japan

to the Kingdom of Thailand

Keynote Speech (III)

Industrial Contribution Towards Education for Thailand 4.0

Dr. Pailin Chuchottaworn, Committee on Human Capital Development of The Public-Private Collaboration

Panel: Towards Global Education and Research Collaboration for Thailand 4.0

Assoc. Prof. Dr. Peniit Srinophakun. (KU), President of Biotechnology Association Asst. Prof. Dr. Chinda Charoenphonphanich, (KMITL), President of Thai Society of Mechanical Engineers Assoc. Prof. Dr. Bundit Fungtammasan, (KMUTT), Senior Vice President for Research and Innovation Prof. Dr. Somnuk Tangtermsirikul, (SIIT), Director of SIIT

Prof. Dr. Katsunori Hanamura, (Tokyo Tech), Chair of TAIST Tokyo Tech Steering Committee Dr. Katiya Greigarn, Vice Chairman, Board of the Federation of Thai Industries, and Chairman, Institute for Research, Development & Innovation



















10 Year Anniversary TAIST Tokyo Tech

Towards Global Education and Research Collaboration for Thailand 4.0

August 21st, 2017, Chaophya Park Hotel, Ratchada, Bangkok, **Thailand**















Professors / Advisors / Researchers

- The list of professors from each institute is given in the guideline.
- The summary is as follows.
 - 23 NECTEC Researchers / Professors
 - 28 Tokyo Tech Professors
 - 30 KU Professors
 - 20 SIIT Professors

Research Group in SIIT/ICT

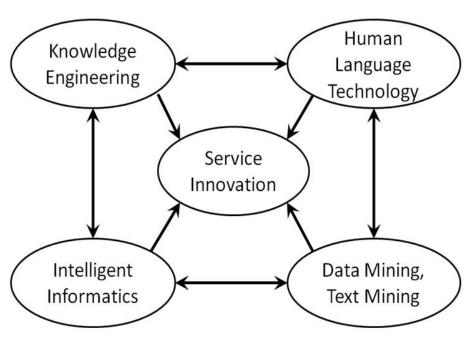
- RF/IF Signal Processing for Next Generation Communication Systems
- Dynamic Wireless & Mobile Network
- Intelligent Informatics
- Sensor network
- Image Processing Laboratory
- Robotics and Mechatronics Laboratory
- Bio Medical Engineering
- Service Innovation

Research Group in KU/EE

- Embedded System Design
- Agritronics
- Digital Signal Processing
- Biometric
- Bio Sensor
- Power Electronics

Intelligent Informatics and Service Innovation

Goal: To be a leading research unit focusing on knowledge discovery and representation, and its application in service science



Functions and Responsibilities

- 1. Conduct fundamental research towards the advancement in the field of artificial intelligence, esp. knowledge discovery and knowledge representation
- 2. Produce high quality graduates to support the knowledge and service industry
- 3. Acquire funding for sponsored research



















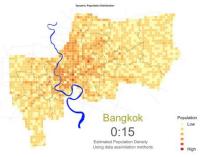


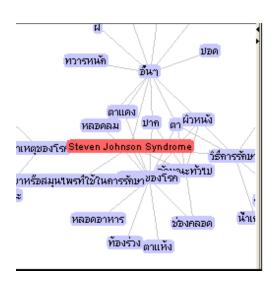
Intelligent Informatics and Service Innovation

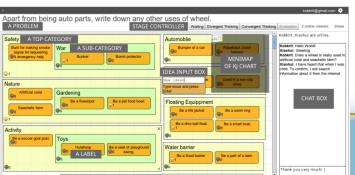
Current Projects (examples):

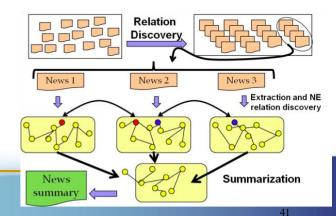
- Medical Database Web Browse to see medical information
- Automatic idea networking from documents
- Online brainstorming & creativity support groupware
- Mining Large Scale Human Mobility Data for Intelligent Urban System Development
- Dynamic population estimation (BKK)
- Flood area detection from change of population distribution in the area











Dynamic Networks(DynaNet) Research Unit



Assoc. Prof. Dr. Komwut Wipusitwarakun



Asst. Prof. Dr. Prapun Suksompong

Focus: Developing novel methods in Dynamic networking environments

Members:

- 4 professors
- 13 graduate students (9 Ph.D, 4 Master)

Current Research Area:

- Sensor networks
- Mobile ad-hoc and vehicular networks
- Network virtualization
- Peer-to-peer and overlay networks
- Smart Grid
- Cognitive Radio networks



Asst. Prof. Dr. Somsak Kitipiyakul

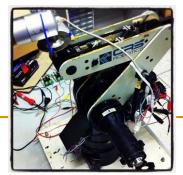
Biomedical Engineering

Objective

 Biomedical Engineering Center (BioMed SIIT) integrates fundamentals from engineering, computer science, medical science and mathematics to solve applied problems in medicine and biology.

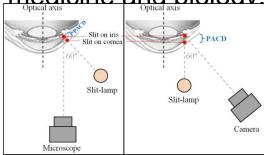
Research Areas

- Bioinformatics
- Biomedical engineering
- Optimization and numerical ranges medical image analysis
- Medical implants and CNC programming
- Biomedical instrumentation
- Smart prosthetics design





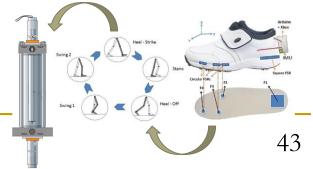








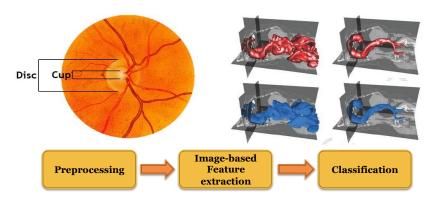




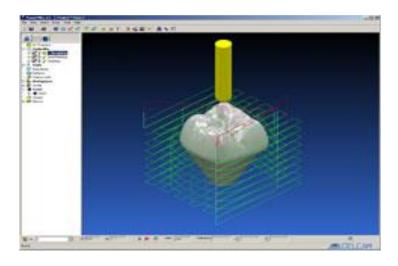
Biomedical Engineering

Current Projects (Examples)

- Diabetic Retinopathy Screen System
- Continuous Force Field Analysis and Generalized Vector Flow for Ultrasound Image Segmentation
- Five-Axis Computer Aided Manufacturing of Dental Implants
- Optimization of Tool Path of 5-axis
 Milling Machines in the Angular Space







- Automatic Eye-Tracking for Surgery and Diagnosis
- Automated Retinal Image Analysis for Glaucoma Detection
- Automatic Screening of Angle-Closure Glaucoma (ACG)
- Variable Damping Control of Intelligent Prosthetic Knee
- Networked Smart Shoe for Reliable Gait Analysis

Biomedical Engineering

Collaborations

- Asian Institute of Technology (AIT)
- Digital Imaging Research Center (DIRC) laboratory at Kingston University
- Thammasat Hospital
- St. Thomas Hospital
- Wat Raikhing Hospital
- National Electronics and Computer Technology Center





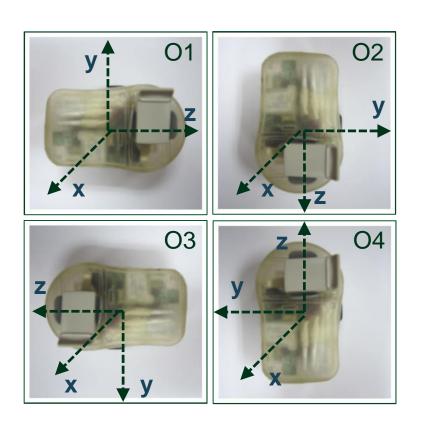






A Semantic-Based Reasoning Framework for Pervasive Sensing

A 3D accelerometer placed on a Pulse Oximetry (SpO₂) sensor



Sampling rate: 50 Hz



Two device locations

Four device orientations

Traffic Speed Measurement and Incident Detection



Traffic Speed Measurement and Incident Detection using Spatio-Temporal Model and Frequency Domain Analysis

Mr. Arucha Rungchokanun

Assoc. Prof. Dr. Vutipong Areekul

Mr. Peeranat Thoonsaengngam

Dr. Supakorn Siddhichai

Prof. Dr. Hiroaki Kunieda



Kinect Application – Image Processing

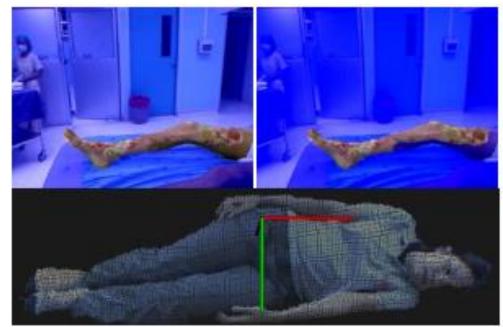
Kinect Quality Enhancement for Triangular Mesh Reconstruction with a Medical Image Application

Young Investigator Award from IRNet

Amornrat Kongma, Miti Ruchanurucks, Panjawee Rakprayoon (KU), Teera Phatrapomnant (NECTEC), Yasuharu Koike (Tokyo Tech), Ikuhisa Mitsugami (Osaka University), Siriluck Kullawaniteewat (Nopparat Rajathanee Hospital), Hanim Maria (Institut Teknologi Sepuluh Nopember)





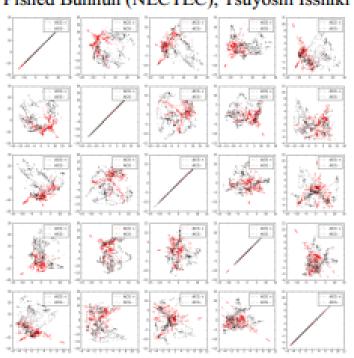


Medical Image Processing with Eye Image

Enhancement of Van HERICK's Method for Automatic Diagnosis of Angle-Closure Glaucoma

7th International Conference of Information and Communication Technology for Embedded Systems (IC-ICTES 2016), 20-22 March 2016, Bangkok, Thailand, pp. 7-13.

Ardakani Ilya Sadeghi, Waree Kongprawechnon, Thanaruk Theeramunkong (SIIT), Pished Bunnun (NECTEC), Tsuyoshi Isshiki (Tokyo Tech), Anita Manassakorn (CU)



According to ophthalmological speculations, Angle Closure Glaucoma (ACG) is going to be a major risk to Asian demography's vision in the coming years. Therefore, devising plans and infrastructures to encounter this hazardous sight disease gained higher priorities. One of the challenges, is the ability to provide the screening and diagnosis facilities for remote, and unprivileged areas. As a solution, a relatively portable platform of automatic ACG screening is designed and developed by National Electronics and Computer Technology Center (NECTEC), a member of National Science and Technology Development Agency (NSTDA).

Energy Consumption Analysis

ANN Approach for Predicting Economic Trends based on Electric Energy Consumption during Natural Disaster Period

The eleventh 2016 International Conference on Knowledge Information and Creativity Support System (The KICSS 2016)

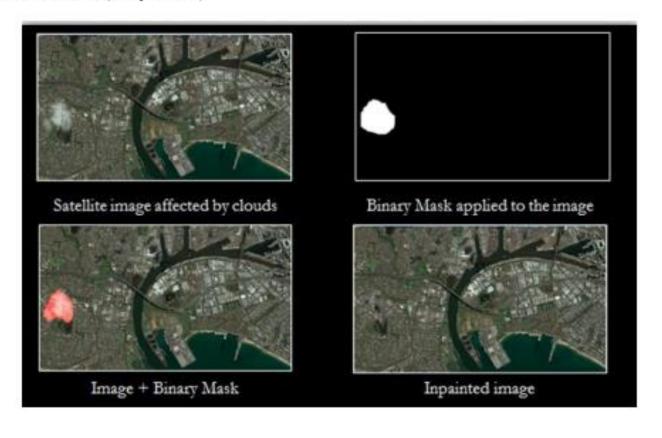
Akanit Kwangkaew, Virach Somlertlamvanich (SIIT, TU), Siriya Skolthanarat (NECTEC), Itsuo Kumazawa (Tokyo Tech)



Remote Sensing Application

Performance Evaluation of Different Image Inpainting Techniques and Identification of Inpainting in Remotely Sensed Images using Neural Networks Luqman Ali, Teerasit Kasetkasem (KU), Thitiporn Chanwimaluang (NECTEC),

Hiroki Nakahara (Tokyo Tech)



List of thesis and research topics (I)

Human Language Technology and Its Embedded System

- NECTEC: Ananlada Chotimongkol, Chai Wutiwiwatchai, Prakasith Kayasith, Premnath Dubey, Thepchai Suprithi
- Tokyo Tech: Takao Kobayashi, Manabu Okumura, Takahiro Shinozaki
- SIIT-KU: Thanaruk Theeramunkong, Virach Sornlertlamvanich

Power Electronics, Control Systems and Manufacturing Systems

- NECTEC: Jiittiwut Suwatthikul, Natchpong Hatti, Nattapon Chayopitak, Siriya Skolthanarat, Udom Lewlomphaisarl, Wutthiphat Covanich
- Tokyo Tech: Hideaki Fujita, Makoto Hagiwara
- SIIT-KU: Waree Kongprawechnon, Kiatiyuth Kveeyarn, Trin Saengsuwan, Vichai Surapatana, Dulpichet Rerkpraeedapong, Parnjit Damrongkulkamjorn, Siriroj Sirisukprasert, Komsan Hongesombut, Jantanee Rungrangpitayagon, Weerawoot Kanokbannakorn, Siwapon Srisonphan

Wireless Communication and Its Applications

- NECTEC: Kamol Kaemarungsi, Phisanu Duangtanoo, Sornthep Vannarat, Waranyoo Phiwthongkham
- Tokyo Tech: Ryutaro Matsumoto
- SIIT-KU: Somsak Kittipiyakul, Wachira Chongburee

Image Processing, Computer Vision and Its Embedded Systems

- NECTEC: Pished Bunnun, Teesid Leelasawassuk
- Tokyo Tech: Hirohiko Kaneko, Itsuo Kumazawa
- SIIT-KU: Stanislav S. Makhanov, Bunyarit Uyyanonvara, Toshiaki Kondo, Natsuda Kaothanthong, Vutipong Areekul, Srijidtra Charoenlarpnopparut, Teerasit Kasetkasem, Somying Thainimit

List of thesis and research topics (II)

- Signal Processing and Its Embedded System
 - NECTEC: Chusak Thanawattano
 - Tokyo Tech: Kazuhiko Fukawa, Nobuhiko Sugino,
 - SIIT-KU: Poonlap Lamsrichan, Ekachai Phaisangittisagul, Pisut Raphisak
- Integrated Circuit, Embedded System Design and Real Time System
 - NECTEC: Teera Phatrapornnant
 - Tokyo Tech: Yuko Hara-Azumi, Tsuyoshi Isshiki, Hiroki Nakahara, Atsushi Takahashi, Shuichi Ueno,
 - SIIT-KU: Natavut Kwankeo, Chugiat Garagate, Dusit Thanapatay, Patamaporn Sripadungtham, Nithiphat Teerakawanich
- Geographical Information System and Location-based
 - Tokyo Tech: Shigeru Kakumoto
 - SIIT-KU: Teerayut Horanont, Mongkol Raksapatcharawong
- Information and Communication Theory and Application
 - Tokyo Tech: Tomohiko Uematsu, Katsunori Yamaoka
 - SIIT-KU: Chalie Charoenlarpnopparut, Komwut Wipusitwarakun, Nirattaya Khamsemanan, Gun Srijuntongsiri, Prapun Suksompong, Usana Tuntoolavest, Denchai Worasawate, Woradorn Wattanapanitch

List of thesis and research topics (III)

- Human Information Processing
 - Tokyo Tech: Yasuharu Koike
- Human Interface, Virtual Reality and Haptics
 - Tokyo Tech: Shouichi Hasegawa, Takamichi Nakamoto, Natsue Yoshimura
- Sensor Network and Applications
 - NECTEC: Khongpan Rungprateepthaworn
- Agricultural application and Its Embedded System
 - NECTEC: Rachaporn Keinprasit,
- Software Engineering and Embedded Programming
 - NECTEC: Rangsarit Vanijjirattikhan
- Knowledge Engineering and Expert System
 - SIIT-KU: Ekawit Nantajeewarawat, Cholwich Nattee, Pakinee Aimmanee, Nguyen Duy Hung
- Robotics and Mechatonics
 - SIIT-KU: Itthisek Nilkhamhang, Miti Ruchanurucks, Chowarit Mitsantisuk, Kanjanapan Sukvichai
- Microelectronics, Electromagnetic Wave, and Antenna
 - SIIT-KU: Banlue Srisuchinwong, Nattaka Homsup, Waroth Kuhirun, Wiroonsak Santipach

Thesis Title

Mining Translation Pairs

About Traffic Event Reporting System

Towards a BSN-based gesture interface for intelligent home applications

Robust Image Processing in Embedded Systems

Development of an image stabilization for ophthalmic diagnosis and treatment

Text analysis for Thai text-to-speech synthesis system on embedded device

Speech Synthesizer for Thai Text-to-speech (ITS) system on embedded device

Computer vision (Body Scan) - Sterio Camera Image Matching

Thesis Title

Automatic Tele-Diagnostic System of Cardiac Sound.

High Performance of Eddy-current Dynamometers with FEL Controller

Portable Ultrasound Image Acquisition on Notebook PC

Automatic Tele-Diagnostic System of Codiac Sound

Downsizing Speech Recognition System for

Embedded System

Thesis Title

ECG Paper Conversion Prototype

Estimation of alcohol percentage in gasoline-ethanol blended fuel by using artificial neural network

Modeling and Control of Linear PM Motors

Auto-calibration of stereo vision cameras for 3D body scan system

Wireless Dam Environmental Monitoring System

Data Compression in Wireless Sensor Network with Centralized Messaging

Design and Development of a Smart Data Logger for Hydrological Monitoring System

Thesis Title

Embedded Multi Sensor for hydrological Monitoring systems.

H∞ Loop Shaping Controller Design for Rejecting Disturbance on CNC Machine

The RoIP system prototype for Emergency Communication via IPSTAR Broadband Internet

An Automatic Fertilizer Applicator Using a GIS Database

Image processing for real-time fertilizer in agricultural field operations

Rainfall Pattern Estimate in Thailand Using FY2-C Satellite Data

Gesture analysis and development of an assistive device for speech-impaired disabilities

On-Line Thai Handwriting Recognition using the Novel RNN-based recognizer

Mobile Phone Touch Screen Keyboard Improvement

Research on Assistive Technology using Object Tracking

Recommending Thai news with the aid of twitter

The development of a context sensing system on iPhone.

Automatic Hemorrhage Detection for Diabetic Retinopathy

ECG data analysis and classification of ventricular and supraventricular tachycardia.

Design a framework for automated generation of database schema and streaming data obtained from BSN into the database.

Vessel Detection on Infant Retinal Image

Scaling the size of the object using active stereo camera

A semantic-based reasoning framework for pervasive sensing

Traffic Tracker System from Traffic Surveillance Camera

GPS Accuracy Enhancement Using Image Analysis
MEMS Scanner Application for Microscope
Data compression in multi-hop wireless sensor network
Study And Hardware Implementation of Data Compression For Ultrasound Imaging
Planar surface area estimation using camera and orientation sensor
Asynchronous and Non-invasive EEG signal in Brain-Machine Interfaces (BMIs) for Environmental Control
Fault diagnosis in Electrical System using wavelet transform
Crop classification in Thailand using Video Image Analysis
Traffic Incident Detection

Graduation Check List (SIIT)

No.	Requirement
1.	Pass 24 credits of taught courses
	(Cumulative GPA greater than 3.0)
2.	Pass 15 credits of master's thesis (all passed)
3.	Pass Thesis Proposal presentation (Fill in an SIIT form)
4.	Publish at least two international conference papers.
	Publish int'l conference papers
	Publish national journal papers
	Publish int'l journal papers (with impact factor)
	Publish int'l journal papers (w/o impact factor)
5.	Pass English proficiency test (Fill in an SIIT form)
	(Test/Score: TU-GET/TOEFL greater than 550)
6.	Submit the thesis to external examiner and got response.
7.	Revise the thesis based on the external examiner's response
8.	Pass Thesis Defense Examination (Fill in an SIIT form).
	At the defense date, the thesis is required to revise based on the external examiner's response.

Graduation Check List (KU)

No.	Requirement
1.	Pass 24 credits of taught courses
	(Cumulative GPA greater than 3.0)
2.	Pass 15 credits of master's thesis (all passed)
3.	Submit Thesis Proposal (Fill in an KU form)
4.	Publish at least two international conference papers.
	Publish int'l conference papers
	Publish national journal papers
	Publish int'l journal papers (with impact factor)
	Publish int'l journal papers (w/o impact factor)
5.	Pass English proficiency test (Fill in an KU form)
	(Test/Score: KU-TEST55%/IELTS greater than 5.0/ TOEFL greater than 450)
6.	Pass Comprehensive Exam
7.	Pass Thesis Defense Examination (Fill in an KU form).

Other Supports

- Computer: Notebook
- Thesis support from TAIST (500 \$US)
- Thesis support from university (depend)
- Library (each university + NSTDA)
- Online resource (each university web site)
- English course
- TGIST Scholarship

TAIST Tokyo Tech IC-ICTES 2017



The 8th International Conference on Information and Communication Technology for Embedded Systems

Bangsaen Heritage Hotel, Chonburi Beach, Thailand May 7-9, 2017

HOME SPONSORS CONTACT US



TAIST Tokyo Tech IC-ICTES 2018

The 9th annual International Conference on Information and Communication Technology for Embedded Systems (IC-ICTES 2018)

To be announced

May or August 2018

(with ICESIT)

The 2018 International Conference on Embedded Systems and Intelligent Technology (ICESIT 2018)



SIIT — School of Information, Computer and Communication Technology

- 20 faculty members in the fields of Power, Electronics, Control, Computer Science and Information Technology.
- Around 400 and 90 undergraduate and graduate students, respectively.

SIIT Facilities

- Library
- Computer Center
- Computer/Networking Labs
- Power/Electronic/Control/Communication Labs
- Research Laboratories

















Electronics/Feedback/Digital Circuit Lab.

Optical communication Lab.

KU — Electrical Engineering Department

- 50 faculty members in the fields of Power, Electronics, Control and Communication.
- Around 500 and 100 undergraduate and graduate students, respectively.

KU Facilities

EE Department has 6 class rooms for graduate study.

The Department has over 15 research laboratories

located in two buildings









10 Year Anniversary Seminar





Towards Global Education and Research Collaboration for Thailand 4.0

August 21, 2017 Chaophya Park Hotel Grand Ratchada (5th Floor)



Dr. Narong Sirilertworakul, President of NSTDA

Prof. Dr. Yoshinao Mishima, President of Tokyo Institute of Technology **Opening Remarks**

Dr. Atchaka Sibunruang, Minister of Science and Technology

Certificate Ceremony for the Contributor & TAIST Tokyo Tech Sponsor

10 Year Anniversary TAIST Tokyo Tech Symposium

Keynote Speech (I)

EEC (Eastern Economic Corridor) Development Roadmap

Dr. Kanit Sangsubhan, Secretary-General Eastern Economic Corridor Office, Thailand

Keynote Speech (II)

130th Year Thailand-Japan Relations (Tentative)

H.E. Mr. Shiro Sadoshima, Ambassador Extraordinary and Plenipotentiary of Japan

to the Kingdom of Thailand

Keynote Speech (III)

Industrial Contribution Towards Education for Thailand 4.0

Dr. Pailin Chuchottaworn, Committee on Human Capital Development of The Public-Private Collaboration

Panel: Towards Global Education and Research Collaboration for Thailand 4.0

Assoc. Prof. Dr. Peniit Srinophakun. (KU), President of Biotechnology Association Asst. Prof. Dr. Chinda Charoenphonphanich, (KMITL), President of Thai Society of Mechanical Engineers Assoc. Prof. Dr. Bundit Fungtammasan, (KMUTT), Senior Vice President for Research and Innovation Prof. Dr. Somnuk Tangtermsirikul, (SIIT), Director of SIIT

Prof. Dr. Katsunori Hanamura, (Tokyo Tech), Chair of TAIST Tokyo Tech Steering Committee Dr. Katiya Greigarn, Vice Chairman, Board of the Federation of Thai Industries, and Chairman, Institute for Research, Development & Innovation



















10 Year Anniversary TAIST Tokyo Tech

Towards Global Education and Research Collaboration for Thailand 4.0

August 21st, 2017, Chaophya Park Hotel, Ratchada, Bangkok, **Thailand**















10 Year Anniversary Seminar

Thai Kuramae Kogyo Kai

Tokyo Tech Alumni Association (Thailand Chapter) and Tokyo Institute of Technology

- An Industry-Tokyo Tech Collaboration Seminar -

25 Year Anniversary of Thai Alumni Gathering & 10 Year Anniversary of Thai Kuramae Kougyou Kai 10 Year Anniversary of TAIST-Tokyo Tech & 15 Year Anniversary of Tokyo Tech Office (Thailand)

Big Data, AI.

and their Applications KEUNDTE SPEECH

What we are working on AI and Big Data related research fields

ThAlland 4.0

The Latest Works on Industrial and Medical Applications of Deep Learning and UX Improvement



Manabu Okumura

Tokyo Institute of Technology

Precision and Intelligence Laboratory, CAT Telecom Public Company

Director

Institute of Innovative Research, Tokyo Institute of Technology

PANEL DISCUSSION

How can AI, Big Data and IoT be applied to Thai industries?







Assistant to the Rector for Research Affairs,

Assistant Professor, Director of CoE-ISI TNI





Advisor to the President for Education Mahidol University

Chulalongkorn University

August 20, 2017, 13:00-17:30

RSVP by Aug 10, 2017 (Free !! Limited 100 seats only

Contact: tokyotech@titech.in.th or samanan@titech.in.th





Tokyo Tech



Tokyo Tech

Thai Alumni

25 Year Anniversary Tokyo Tech Alumni

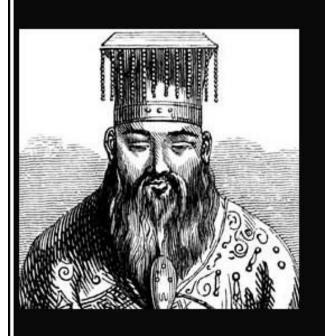
AI, Big Data, IoT and their Application

August 20nd, 2017, 13:00-17:30 Chaophya Park Hotel, Ratchada, Bangkok, **Thailand**

Please kindly register at the following URL.

https://www.sciencepark.or.th/index.php/th/news-aactivities/938/Tokyo-Tech-Alumni-Association-Seminar-2017/

https://www.sciencepark.or.th/index.php/en/news-aactivities/938/Tokyo-Tech-Alumni-Association-Seminar-2017/

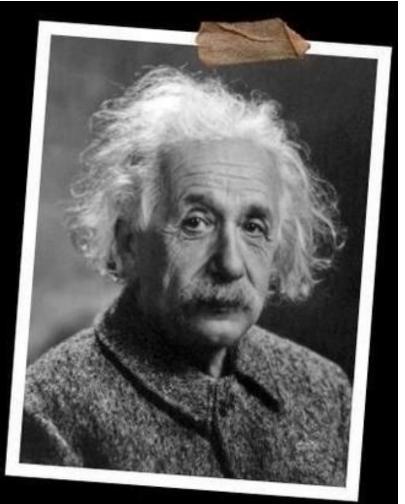


He who learns but does not think, is lost! He who thinks but does not learn is in great danger.

(Confucius)

izquotes.com

"Education is not the learning of facts, but the training of the mind to think." -Albert Einstein



I think that

NOT

I was told that

Tips for being success

- Keep your words and do not say "Mai Pen Rai" (รักษาความพูดและมาตรฐาน ไม่ใช้คำว่า ไม่เป็นไร)
- Well-mannered (ให้มีมารยาทดี)
- Aim high and be Excellency (แสวงหาความเป็นเลิศ)
- Accept potential of our product/service and try to extend (ยอมรับในความสามารถของคนไทยในประเทศ และนำไปต่อยอด)
- Service mind, Giving mind and Social Contribution (จิตใจเผื่อแผ่ ไม่เห็นแก่ตน การช่วยเหลือสังคม)

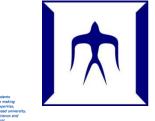
TAIST Tokvo Tech Initiatives

ADDA JO



Assoc. Prof. Dr. Sakarindr Bhumiratana Ex-Director NSTDA







Prof. Dr. Toyosaka MORIIZUMI Ex-Tokyo Tech Office Director

TAIST Tokyo Tech Initiatives

apput 1



Asst. Prof. Prayoon Shiowattana Ex-Vice President, NSTDA



Assist. Prof. Dr. Lerkiat Vongsarnpigoon Ex-Deputy Director, MTEC,NSTDA

TAIST Tokyo Tech Initiatives





Dr. Thaweesak Koanantakool Ex-President, NSTDA

TAIST Tokyo Tech – NSTDA Executives





Dr. Narong Sirilertworakul President, NSTDA



Ms. Viraporn Mongkolchaisit

Dr. Ladawan Krasachol

Executive Vice President



Dr. Somvong Tragoonrung
Executive Director of National Center for Genetic Engineering and Biotechnology (BIOTEC)



Assoc. Prof. Dr. Werasak Udomkichdecha Executive Vice President



Dr. Julathep Kajornchaiyakul Executive Director of the National Metal and Materials Technology Center (MTEC)



Prof. Prasit Palittapongarnpim,M.D. Acting Executive Vice President



Dr. Sarun Sumriddetchkajorn

Executive Director of National Electronics and Computer

Technology Center (NECTEC)



Dr. Chularat Tanprasert Executive Vice President



Dr. Wannee Chinsirikul
Executive Director of National Nanotechnology Center
(NANOTEC)



Dr. Chadamas Thuvasethakul Executive Vice President

Thanks and Welcome

Thanks to Supporters for Continuous Support on TAIST Tokyo Tech ICTES program

NSTDA

Tokyo Institute of Technology SIIT, Thammasat University **Kasetsart University**

ICTES Students, Welcome to TAIST Tokyo Tech ICTES Program













