2019 1 IAI Meeting Wednesday 14:00

Tolendiyev Gabit 6	Liliana 5	Richard Evan Sutanto 4
Ibrokhimov Sanjar 4	Nodirbek Kosimov 3	Sutanto Edward Budiman 3

Liliana : thesis's scenario
Sanjar : thesis's scenario
Summer plans:
Edward, Edwin - 04~24 August 2019
Jiacang - 17~24 August 2019
Richard - 02~28 August 2019
Gabit - 06~27 August 2019

MTCNN
https://towardsdatascience.com/how-does-a-face-detection-program-work-using-neural-networks-17896df8e6ff

https://towardsdatascience.com/face-detection-neural-network-structure-257b8f6f85d1

https://github.com/ipazc/mtcnn
dataset :

8.1 2:00pm Thursday

7.26 2:00pm Friday
Gabit Efficient methods for Pedestrian detection

Liliana :
TELKOMNIKA Telecommunication Computing Electronics and Control (**Scopus** indexed journal, SJR Q2), from international conference
http://icw.telkomnika.com/

The 2019 2nd ICW-TELKOMNIKA
November 19-22, 2019 at Royal Ambarrukmo Hotel, Yogyakarta, Indonesia.

All presented papers in this conference (after extension & revision based upon feedback at the conference & workshop) will be published in one of the journals below:

- TELKOMNIKA Telecommunication Computing Electronics and Control (**Scopus** indexed journal, SJR Q2)
- Bulletin of Electrical Engineering and Informatics (**Scopus** indexed journal, SJR Q2)
- International Journal of Power Electronics and Drive Systems (**Scopus** indexed journal, SJR Q2)

Final draft : understanding real world hand motion

Understanding Real-World Hand Motion for VR-based Physical Treatment
→
A Robost Method for Hand Gesture Recognition using CNN
A Robost Method for Hand Gesture Recognition using density-based CNN
A Robost Classification Method for VR-based Hand Gesture using density-based CNN
A Robost Method for VR-based Hand Gesture Recognition using density-based CNN

Ji-Hun Choi → Ji-Hun Chae
This work was supported by Institute for Information and Communications Technology Promotion (IITP) grant funded by the Korea government (MSIT) (No.2018-0-00245, Development of prevention technology against AI dysfunction induced by deception attack)
→
This work was supported in part by Institute for Information and Communications Technology Promotion (IITP) grant funded by the Korea government (MSIT) (No.2018-0-00245, Development of prevention technology against AI dysfunction induced by deception attack). And it was also in part supported by the Dongseo University Research Year.

***Sensors* — Open Access Journal, SCIE and SCOPUS indexing**
https://www.mdpi.com/journal/sensors

Journal of ICT Research and Applications(SJR Q4)
http://journals.itb.ac.id/
Batch I
Submission deadline : Jun 20, 2019
Notification of Acceptance : Aug 30, 2019
Camera ready-papers deadline : Sep 30, 2019
Early Bird deadline : Sep 30, 2019
Registration deadline : Oct 25, 2019

Batch II
Submission deadline : **Jul 25, 2019**
Notification of Acceptance : Sep 15, 2019
Camera ready-papers deadline : Oct 15, 2019
Registration deadline : Oct 25, 2019
Papers Submission through EDAS: https://edas.info/N26600 (**After July 25, 2019**)

Special Batch
Submission deadline : **Aug 15, 2019**
Notification of Acceptance : Sep 20, 2019
Camera ready-papers deadline : Oct 25, 2019
Registration deadline : Oct 25, 2019

Pix2Pix Web Human Face 2 Depth & Face Feature Point and

7.11
Jiacang - ppt

Gabit - ppt

6.12
Gabit RasberryPI, Zetson nano
Sanjar -
Nodirbek -
Edwin -

6.5
Liliana report
train 1000 9 person 480x340 rgb depth
test 50 1 person
Gabit report

5.22
Richard & Jiacang Debug Images
Defense:

- UniImage (Link)
- Deep Image Prior

5.15
Liliana report
Gabit ppt

5.08
Raspberry pi, Pedestrian Detection by JoonJaeLee
Nodirbek - Deep Learning based Human Pose Estimation using OpenCV
Edwin - 3D Object Generator using GAN
Liliana report dataset hand gesture, journal revise

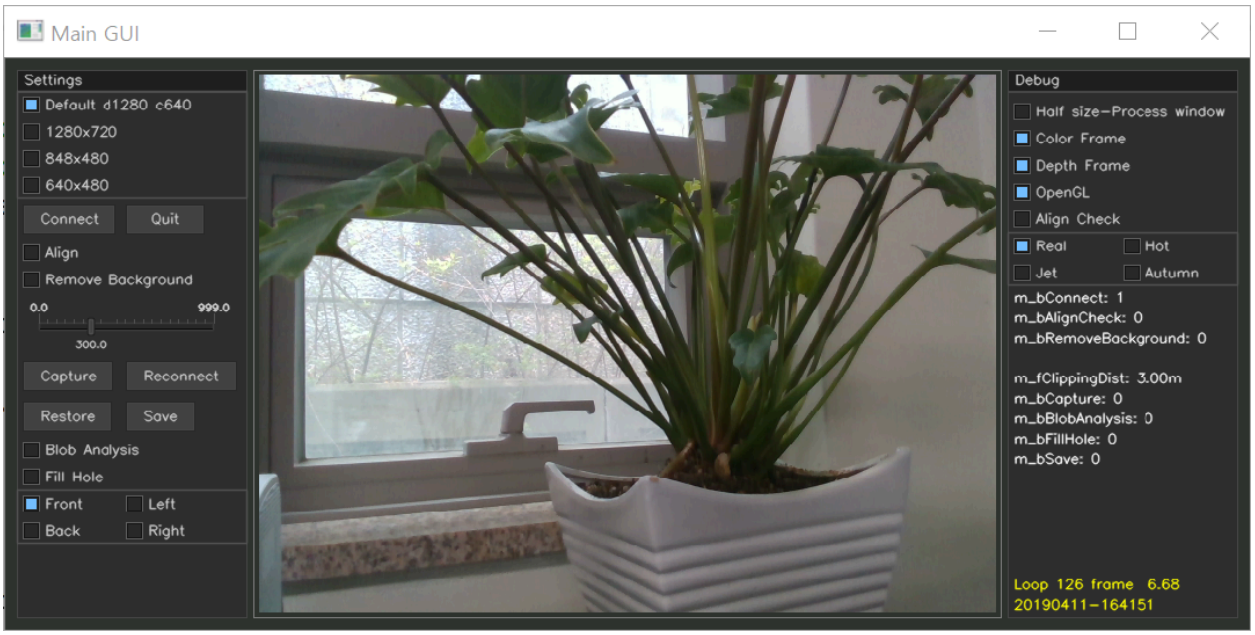
Acknowledgement sample
This work was supported by Institute for Information and Communications Technology Promotion(IITP) grant funded by the Korea government(MSIT) (No.2018-0-00245, Development of prevention technology against AI dysfunction induced by deception attack)

1. real sensor windows vs2015 with gui
2. voice recognition with javascript
3. adversarial attack/defence : nips
4. adversarial attack check list…
5. voice recognition with python

2019년 춘계학술발표대회 안내
1. 일시: 2019. 5.17~18
2. 장소: POSTECH 포항공과대학교 국제관

3. 논문모집: 2019. 3.1 ~ 4.14 - Sanjar, Gabit **extened 4.21**
http://multi02.thesome.com/

Intel Realsensor with GUI



https://drive.google.com/open?id=1hRyuyafdd99RGfeLQfNI1wklk6cYyyvQ

Dear JKCCS2019 Authors,
This email was sent via BCC as there are multiple recipients

The deadline of the submission of "NOLTA, IEICE" Journal, Special Issue has been extended.

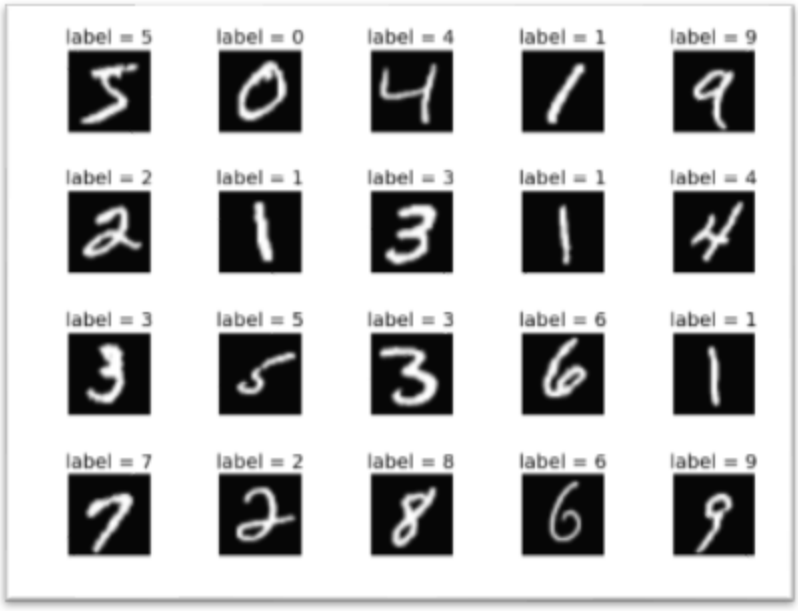
Please check the CFP in NOLTA web site
(http://www.ieice.org/eng/s_issue/cfp/2020_1EN.pdf).
Thank you for your active contribution.

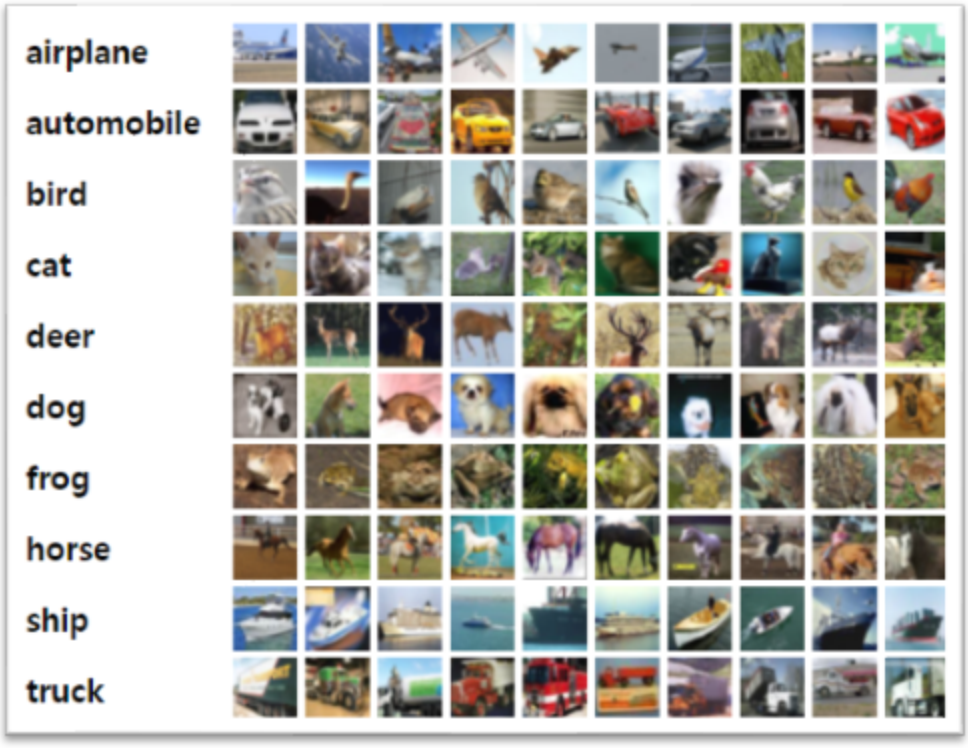
*** Title : Special Section on Fundamentals and Applications of Complex Communications and Multimedia Functions**
*** The deadline for the paper submission: May 7, 2019.**

Hand Gesture

why?

Training Test Data Set
total 7000 training 4200 test 1200
File Format
Data open link
Sample View





3D Hand Gesture -> 2D Image Conversion
Interpolation and projection plane

Application
https://assetstore.unity.com/packages/tools/input-management/3d-motion-gesture-and-signature-recognition-for-microsoft-mixed--109866
https://itroadblog.wordpress.com/2016/09/21/5-ways-to-interact-with-htc-vive-hand-controls/
https://virtualrealitytimes.com/2017/02/16/vr-gesture-controllers/

2019. 10 April 14:00
Richard ART

PR accuracy sheet - Download
UIP accuracy sheet - Download

Untargeted Attack						
Dataset	Attack Technique	Defence Model				Evaluation
		PR (1000e trained model, 1000 attack iteration CW)	Deep Image Prior (15e trained model, 1000 attack iteration CW)	UniImage Procedure, UIP (1000e trained model, 1000 attack iteration CW)	UIP + noise (1000e trained model, 1000 attack iteration CW)	
L0 MNIST	L2CW					>30
	DDN					
L0 CIFAR10	L2CW					>20
	DDN					
L0 Fashion-MNIST	L2CW					
	DDN					
L2 MNIST (has to recalculate for the success AE's distance)	FGSM	5.7674		**6.3286**	3.6911	
	BIM	**4.1312**		2.4808	2.1874	
	MIM	5.1183		**6.1796**	3.3154	
	L2CW	**0.6419**		0.4068		
	HSJA					
L2 Fashion-MNIST	FGSM	0.7428		0.7632	**0.7643**	
	BIM	**0.7131**		0.7002	0.6997	

	MIM	0.7395		0.7568	**0.7646**	
	L2CW	**1.1042**		0.7982		
	HSJA					
L2 CIFAR10	FGSM	**1.7320**		1.7232	1.7236	
	BIM	**1.6035**			1.5608	
	MIM	**1.7299**			1.7211	
	L2CW	**0.8402**		0.7760		
	HSJA					
Accuracy MNIST	Normal	**0.9871**		0.9788	0.9809	
	FGSM	**0.9699**		0.8698	0.8461	
	BIM	**0.9829**		0.6739	0.9611	
	MIM	**0.9686**		0.7700	0.9019	
	L2CW	**0.9853**		0.3141		
	HSJA			0.3888		
	YY			0.9783	**0.9801**	
Accuracy Fashion-MNIST	Normal	**0.8663**		0.8436	0.8599	
	FGSM	0.8459		0.8372	**0.8513**	
	BIM	0.8435		0.8349	**0.8561**	
	MIM	0.8367		0.8326	**0.8527**	
	L2CW	0.8450		0.7254		
	HSJA			0.5348		
	YY			0.8431	0.8579	
Accuracy CIFAR10	Normal	**0.5201**		0.5602	0.5032	
	FGSM	0.3344		**0.4605**	0.4595	
	BIM	0.3534				
	MIM	0.3040				
	L2CW	0.4651				

	HSJA					
	YY					

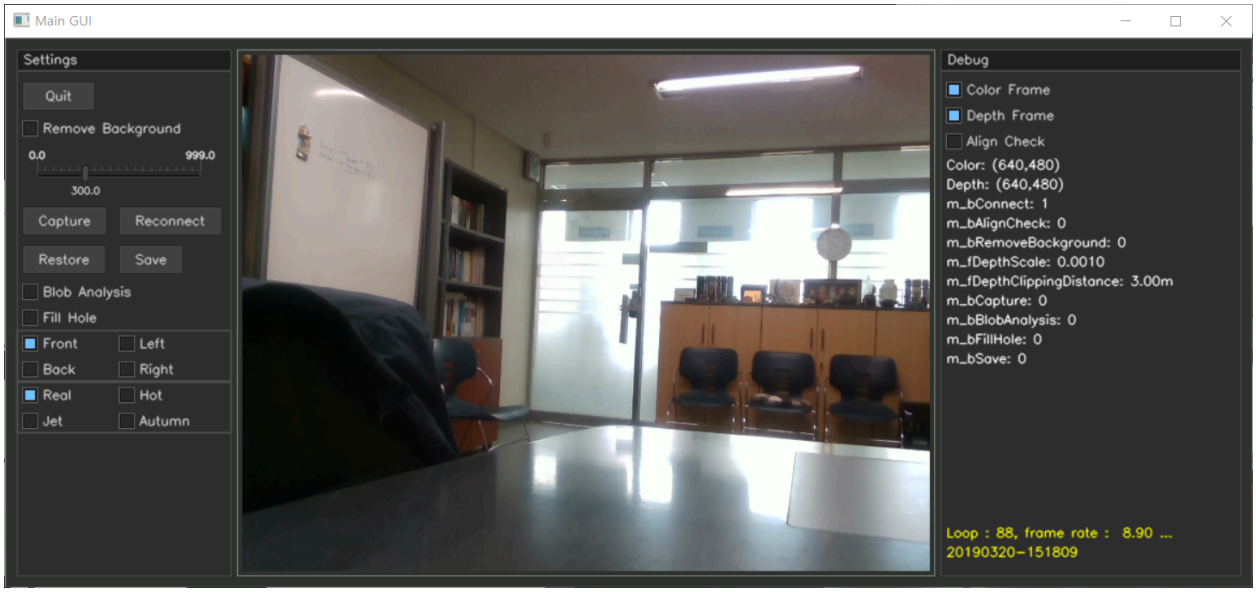
Dataset	Attack Model			
	Binary Search Attack	Adversarial Training		
L0 MNIST				
L0 CIFAR10				
L0 Fashion-MNIST				

2019. 04.15 14:00
Gabit PPT

2019. 03 April 14:00
Richard: https://github.com/IBM/adversarial-robustness-toolbox
Gabit : FaceNet, Cosia Data set, 0%
Jiacang: Speech Recognition Script

2019. 27 March 14:00
Sanjar Multi-task CCN

2019. 20 March 14:00
Speech recognition demo code
Jiacang: Binary Search Attack
Richard : Deep Image Prior
Liliana: draft for NOLTA journal
Gabit: ppt https://arxiv.org/abs/1801.09414
IAI_Dataset ppt



source code

id.txt
00001 liliana
…
00003 gabit

descriptor.txt
20190313_140301 00001
20190313_140306 00001
20190313_140316 00003

20190313_140301D.jpg
20190313_140301C.jpg

2019. Wed 13 14:00
Liliana : Multiple Generator GAN MGAN -
Richard : adversarial example …
Gabit : https://arxiv.org/abs/1801.09414
Sanjar : FaceNet Bayesian Face Revisited
FaceNet, …
Abstract …
Agenda …
Edward : https://arxiv.org/abs/1704.06036

2019. Wed 06 14:00
Liliana : Pix2Pix, from ETRI dataset
Richard : adversarial example …
Gabit : Triplet loss, RealSensor - after adjustment IAI 연구실에 필요한 컴퓨터 부품
Sanjar : FaceNet Bayesian Face Revisited
FaceNet, …

Abstract …
Agenda …

Edward : Siamesse Network https://www.cs.cmu.edu/~rsalakhu/papers/oneshot1.pdf
Nordirbek : Python, …

2019. Feb 20 Wed 14:00
Jiacang : Madry defense & Attacking Madry Defense PPT PDF

2019. Jan 30 Wed 14:00
Sanjar : FaceNet
Gabit : FaceNet Triplet loss (***) Depth and Color image capturing program
Liliana : learning to generate facial depth map

2019. Jan 23 Wed 14:00
FaceNet by gabit
LFW : 13,000 images of 1680 individuals
Youtube Face DataBase : 3,425 videos of 1,595 different people;
the average length of a video clip is 181.3 frames

Sanjar : Scenario
Attendance Management System using Deep Learning Face Detection

1. FaceNet, …
2. Senario Place : Class Attendance, IAI Lab, Caffe, Working

Nodirbek : Selective Search

2019. Jan 16 Wed 14:00
Liliana : Depth Face
Pix2Pix_Depth by jjlee lab. keimyung univ.

2019. Jan 9 Wed 14:00
Sanjar :
Monocular Depth Estimation with Pix2Pix

Image-to-Image Translation with Conditional Adversarial Networks,
Phillip Isola, Jun-Yan Zhu, Tinghui Zhou, Alexei A. Efros, CVPR2017
https://github.com/phillipi/pix2pix

Deep Ordinal Regression Network for Monocular Depth Estimation
Huan Fu, Mingming Gong, Chaohui Wang, Kayhan Batmanghelich, Dacheng Tao, CVPR2018
https://github.com/hufu6371/DORN

FaceNet: A Unified Embedding for Face Recognition and Clustering
Florian Schroff, Dmitry Kalenichenko, James Philbin, CVPR2015
Gabit FaceNet ppt

Intel Realsense D435

NIPS
Jiacang - Decoupling Direction and Norm for Efficient Gradient-Based L2 Adversarial Attacks and Defenses PPT
Decoupling Direction and Norm for Efficient Gradient-Based L2 Adversarial Attacks and Defenses
CW Model Paper,

Voice Recognition -
Gabit Scenario - adversarial sticker

12.18
Gabit FaceNet ppt Intel Realsense
List of computer components required to purchase in IAI lab
Liliana final paper JKCCS2019

12.4
Lilliana JKCCS paper summary, draft paper pdf
Nodirbek - R-CNN → Selective Search ppt, R-CNN pyhon code
Sanjar Fast R-CNN and Faster R-CNN → Faster R-CNN python code, Intel RealSensor, ...