

# INTELLIGENT SYSTEMS

**Derwin Suhartono**

**Alam Sutera: 5 October 2015 | 09.20-11.00**  
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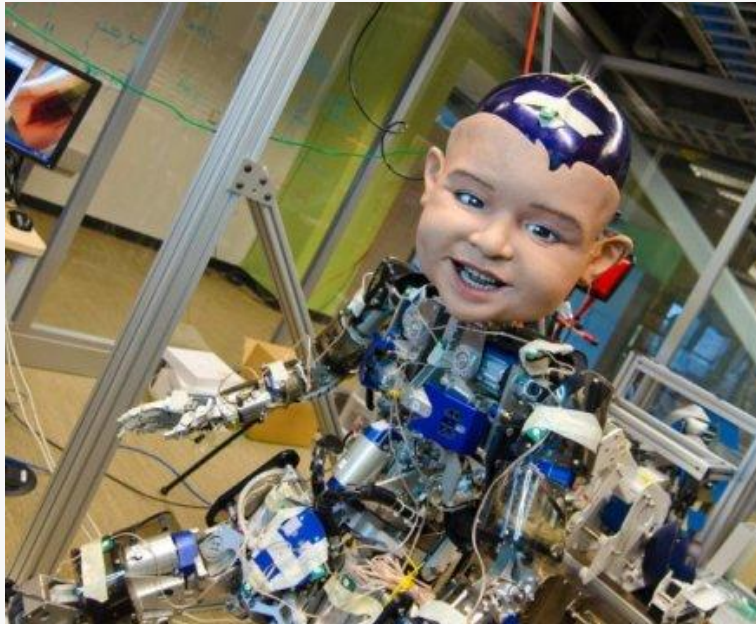
# Intelligent Systems

## Artificial Intelligence

- A branch of computer science that studies the computational requirements for tasks such as perception, reasoning, learning and develop systems to perform those tasks.
- An area of computer science that deals with giving machines the ability to seem like they have human intelligence.

# Intelligent Systems

## Babies time their smiles to make their moms smile in return



September 23, 2015 - University of California - San Diego

Why do babies smile when they interact with their parents? Could their smiles have a purpose? A team of computer scientists, roboticists and developmental psychologists confirm what most parents already suspect: when babies smile, they do so with a purpose -- to make the person they interact with smile in return. To verify their findings, researchers programmed a toddler-like robot to behave like the babies they studied and had the robot interact with undergraduate students.

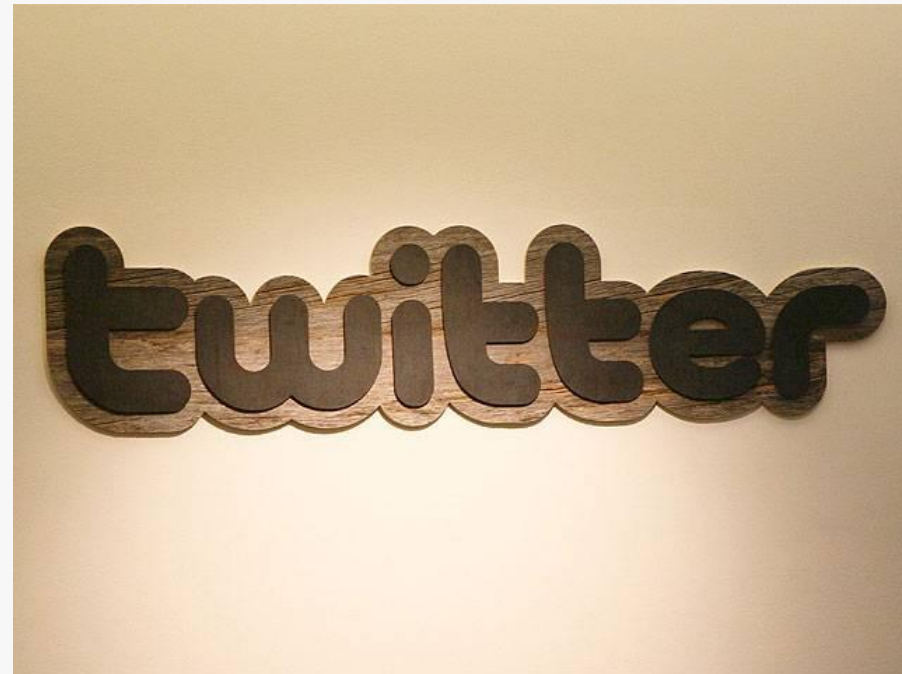
# Intelligent Systems

## Intelligent system to check malware in Twitter URLs

September 26, 2015 – Cardiff  
University – United Kingdom

LONDON: Computer scientists from Cardiff University have created an intelligent system to identify malicious links disguised in shortened URLs on Twitter.

The system could identify potential cyber-attacks with up to 83 percent accuracy within five seconds and with up to 98 percent accuracy within 30 seconds when a user clicked on a URL posted on Twitter and malware began to infect the device.



# Intelligent Systems

## LETTER: Intelligent systems will make roads safer

September 17, 2015

But coming soon — and likely by the end of the decade — is V2V (vehicle-to-vehicle) technology, which will allow transportation agencies to send data directly to your car or truck about accidents, approaching storms and alternate routes. V2V also will collect data about surrounding cars' speeds and even traffic volumes to prevent crashes or redirect drivers to alternate routes.



# Intelligent Systems

## Science Videos

*from news services*

### Apple Wants More Staff To Work On Artificial Intelligence

*Date:* September 7, 2015

*Source:* Newsy / Powered by NewsLook.com

*Summary:* Apple is making a push to hire more people to work on what it's calling "machine intelligence." Video provided by Newsy

*Share:*

f 2

t 1

g 0

in 0

in 0

Total shares: 3



Source:

<http://www.sciencedaily.com/videos/7df84c53c86faa8a97f934d7a7029464.htm>

# Down-to-earth benefit To Learn AI

- Familiarity with problem solving
- Experience in having deeper understanding to the concept in Computer Science
- Easy to map courses for student exchange
- Good preparation for next degree study in Computer Science
- Be an inventor, not only implementer

# Course Structure

## 4<sup>th</sup> Semester

COMP8108	Natural Language Processing	2/1
COMP7066	Expert Systems	2/1
COMP7116	Computer Vision	2/2

## 5<sup>th</sup> Semester

COMP7117	Artificial Neural Network	2/2
COMP7126	Artificial Intelligence in Games	2/2

# Lecturers

- D0206 – Ir. Tri Djoko Wahjono, M.Sc.
- D0434 – Dr. Ir. Haryono Soeparno, M.Sc.
- D0638 – Dr. Ir. Tohar Danakusuma
- D1159 – Dr. Ir. Diaz D. Santika, M.Sc.
- D2637 – Dr. Widodo Budiharto, S.Si., M.Kom.
- D3338 – Edy Irwansyah, S.T., M.Si.
- D3690 – Derwin Suhartono, S.Kom., M.T.I.
- D5539 – Lili Ayu Wulandhari, S.Si., M.Sc., Ph.D.

# Former Students Thesis Topics

- Face Recognition untuk pengambilan barang di loker kolam renang
- Question Answering System untuk kebudayaan di Indonesia
- Analisa Discourse Structure pada Bahasa Indonesia
- Automated Thread Generator pada forum diskusi
- Automated Essay Scoring untuk esai bertipe narasi
- Sentiment Analysis dari sebuah produk baru di pasaran
- Automated Text Summarizer untuk Bahasa Indonesia
- Predictive Text pada Bahasa Indonesia
- Analisa Perbandingan Algoritma Greedy dengan Mini-Max
- Metode Lemmatization untuk Bahasa Indonesia

# Former Students Thesis Topics

- Pengendali Rumah Otomatis dengan menggunakan Smartphone
- Pengukur Derajat Kebahagiaan sebuah Rumah Tangga
- Klasifikasi Mammogram untuk Kanker Payudara
- Pendeteksian Penyakit Diabetes Dini dengan metode Fuzzy
- Character Recognition pada KTP Warga Negara Indonesia
- Hand Detection dan Recognition untuk unlock Smartphone
- Klasifikasi Genre Musik secara Otomatis
- Identifikasi Mood seseorang dengan observasi wajah
- Pengukur Tingkat Kantuk Pengendara Mobil
- Pendeteksi Penyakit Tanaman Kopi

# Explore More about AI

- [http://www.sciencedaily.com/news/computers\\_math/artificial\\_intelligence/](http://www.sciencedaily.com/news/computers_math/artificial_intelligence/)
- <https://www.udacity.com/course/intro-to-artificial-intelligence--cs271>
- <http://foundational-research.org/thoughts-on-robots-ai-and-intelligence-explosion/>
- <http://www-formal.stanford.edu/jmc/whatisai/node3.html>
- <http://sourceforge.net/directory/science-engineering/ai/os:windows/freshness:recently-updated/>
- <http://phys.org/news/2015-07-future-artificial-intelligence.html>
- AI Startups in the World: <https://angel.co/artificial-intelligence>

**Contact Person:**

**Derwin Suhartono, S.Kom., M.T.I.**

**CCC Intelligent Systems**

**Computer Science Department**

**Syahdan Campus**

**(021) 5345830 ext 2188**

**[dsuhartono@binus.edu](mailto:dsuhartono@binus.edu)**