

COMPUTER SCIENCE DEPARTMENT UNIVERSITAS PADJADJARAN



PRESENTED IN DISCUSSION OF
RISE_SMA PROJECT 2022

From West Java for Indonesia to the World through SDGs

www.unpad.ac.id



Jakarta (Indonesia) – Amsterdam (Netherland)



SITES

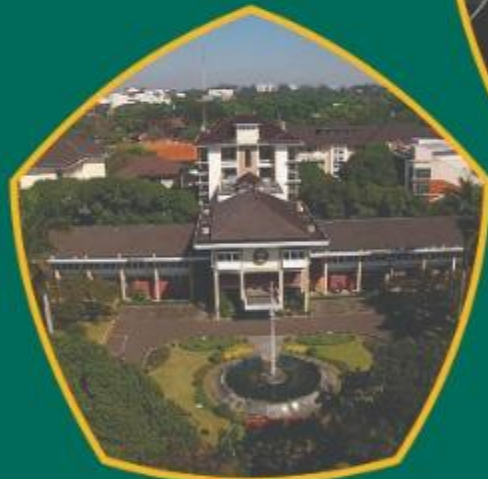
CAMPUS OF JATINANGOR

1.781.780 m²

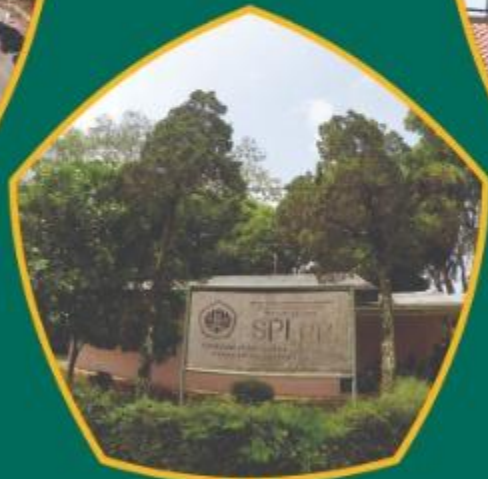


CAMPUS OF PANGANDARAN

330.000 m²



CAMPUS OF BANDUNG



CAMPUS OF ARJASARI

2.603.743 m²



CAMPUS OF GARUT

9.603 m²



UNIVERSITAS PADJADJARAN

Main Campus at Jatinangor



UNIVERSITAS PADJADJARAN

JATINANGOR CAMPUS





Universitas
Padjadjaran in
Numbers



2.109 Lecturers
197 Professors



2.104
Educational Staffs



34.288 Students
139 Internasional
Students



170
Student Activity Units
BEM (Student Executive Body) &
BPM (Student Legislative Body)



37 course sites
444 acre overall area



18 Dormitory buildings
929 rooms for
895 students

16 FACULTIES (176 GRADUATES AND POSTGRADUTES)

Social-Humanities (Sochum)

- Law
- Economic and Business
- Social and Political Sciences
- Cultural Sciences
- Communication Sciences

Science and Technology (Science-tech)

- Medicine
- Mathematic and Natural Sciences
- Agriculture
- Dentistry
- Psychology
- Animal Husbandry
- Nursing
- Fisheries and Marine Sciences
- Agricultural Industry Technology
- Pharmacy
- Geology Engineering



Computer Science Department





COMPUTER SCIENCE DEPARTMENT

- Faculty of Mathematics and Natural Sciences
- Undergraduate Program Established on 2012
- National Accreditation Rank : (A) for Informatics Program
- Admission ratio : 1:77 ✓
- Numbers
 - ☐ Students:
 - Active students: 339
 - Graduating students: 246
 - ☐ Lecturers:
 - 1 Professor, 14 Lecturers
 - 2 lecturers are ~~doctoral students~~ in Leiden University and Universitas Indonesia ✓
 - 2 lecturers are ~~doctoral students~~ in Mathematics Department Universitas Padjadjaran ✓



Dr. Juli Rejito, M.Kom.

Dr. Intan Nurma Yulita, S.Kom. MT.

Akik Hidayat, Drs., M.Kom.

Rudi Rosadi, S.Si, M.Kom.

R. Sudrajat, Drs., M.Si.

Dr. Setiawan Hadi, M.Sc.CS.

Akmal, S.Si, MT. *

Dr. Afrida Helen, S.T, M.Kom.

Aditya Pradana, S.T., M.Eng.

Deni Setiana, S.Si, M.Cs.

Prof. Dr. Atje S. Abdullah,
MS., M.Kom.

Dr. Asep
Sholahuddin, MT.

Ino Suryana,
Drs., M.Kom.

Mira Suryani,
S.Pd., M.Kom.

Erick Paulus,
S.Si, M.Kom.



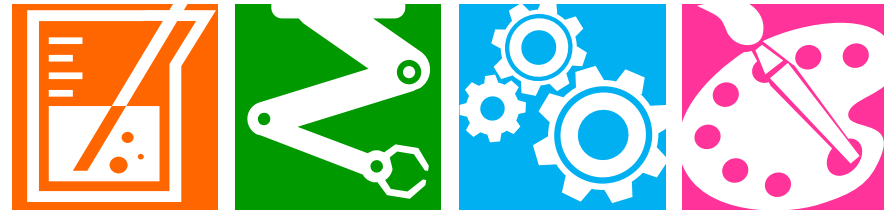


Lecturers

No	Name	ID	Field
1	Prof. Dr. Atje S. Abdullah, MS., M.Kom.	19541217 198601 1 001	Data Mining
2	Dr. Setiawan Hadi, M.Sc.CS.	19620701 199302 1 001	Image Processing and Analysis
3	Dr. Afrida Helen, S.T, M.Kom.	19650128 199703 2 001	Machine Learning
4	Dr. Asep Sholahuddin, MT.	19670403 199303 1 002	Artificial Intelligence and Robotics
5	Dr. Juli Rejito, M.Kom.	19680717 199303 1 003	Database System
6	Dr. Intan Nurma Yulita, S.Kom. MT.	19850704 201504 2 003	Machine Learning
7	Ino Suryana, Drs., M.Kom. **	19600115 198701 1 002	Numerical Method
8	R. Sudrajat, Drs., M.Si. **	19600212 198701 1 001	Database
9	Akik Hidayat, Drs., M.Kom.	19611018 198603 1 002	Cryptography
10	Akmal, S.Si, MT. **	19700615 199803 1 003	Graph Network and Processing
11	Deni Setiana, S.Si, M.Cs.	19730925 200312 1 003	Computer Networking and Cybersecurity
12	Rudi Rosadi, S.Si, M.Kom.	19760723 200812 1 001	Web Technology
13	Erick Paulus, S.Si, M.Kom. **	19820318 200604 1 001	Artificial Intelligence
14	Aditya Pradana, S.T., M.Eng.	19841211 201504 1 002	Computer Networking
15	Mira Suryani, S.Pd., M.Kom. **	19891230 201504 2 001	Human-Computer Interaction



Collaboration





King Abdul Aziz Univ, Saudi Arabia



University in Japan



Duisburg Essen University, Germany



La Rochelle University, France

← Sosialisasi Kompetisi CIMB Niaga Kontribusi Program Studi Informatika Unpad dalam Huawei Smartgen 2018 →

Kunjungan National Taiwan University of Science and Technology (NTUST) untuk Kolaborasi Riset dan Rekrutasi S2/S3

Posted on 12 October 2018 by Intan Nurma Yulita

Pada tanggal 9 Oktober 2018, College of Electrical Engineering and Computer Science (CEECS), National Taiwan University of Science and Technology (NTUST) bertandang ke Fakultas MIPA UNPAD. NTUST mengirimkan empat dosennya antara lain: Prof Shien-Kue Liaw (Wakil dekan CEECS), Prof. Shan-Shiang Shen (computer science), Prof.



Swansea, United Kingdom



Affiliate Member of MIT Abdul Latif Jameel World Education Lab Higher Education Collaborative



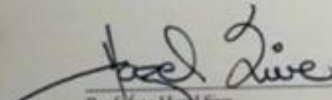
Massachusetts Institute of Technology
Abdul Latif Jameel World Education Lab

is pleased to welcome

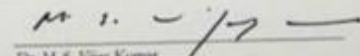
Universitas Padjadjaran

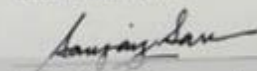
as an Affiliate Member of the Higher Education Collaborative

21 September 2018


Professor Harold See
Faculty Director, Higher Education @ J-WEL




Dr. M. S. Vijay Kumar
Executive Director, J-WEL


Prof. Saugiyanto
Vice Rector for International Relations
Universitas Padjadjaran

www.unpad.ac.id



For MIT Students | For MIT Faculty  Logout

My J-WEL Collaboratives Community Library Learning About

Site Search



J-WEL Connections - October 2020

Private Group with 75 Members
Stop Notifications

Overview Resources Discussions Members Videoconferences

Members

Filter By:

First Name

Last Name

Show: Show 12 results |

Filter



Melchor Sánchez-Mendiola
Mexico City, Mexico City, Mexico



Michelle Turton
Belize, Belize



Mira Suryani
Sumedang, Jawa Barat, Indonesia



LECTURER EXCHANGE

Part of RISE-SMA Collaboration 2022





Industrial Cooperation



GKT Marimo Holdings, Japan



OMNI VR



Oracle Academy



Wagomu, Japan



HUAWEI



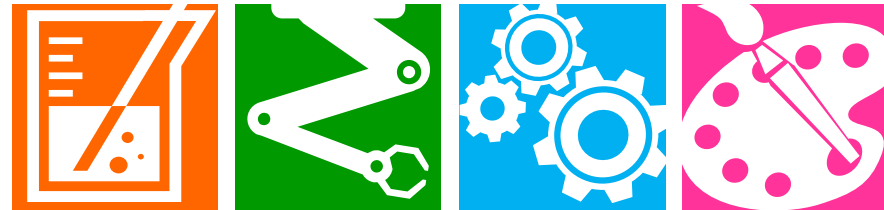
Tokopedia



Microsoft

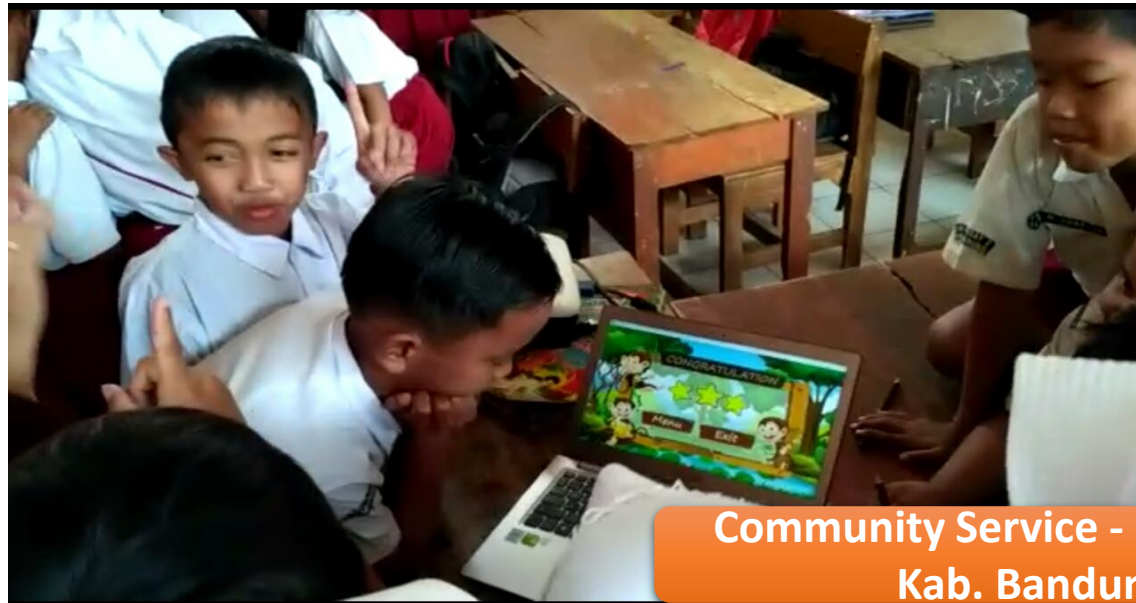


Community Development





Community Service - Pangandaran



Community Service - IT for KIDS, Kab. Bandung



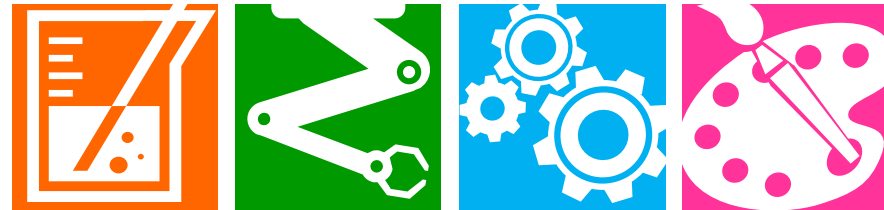
Fun Programming - SMK Jatinangor



Community Service – Foster Village Ciburuy, Garut



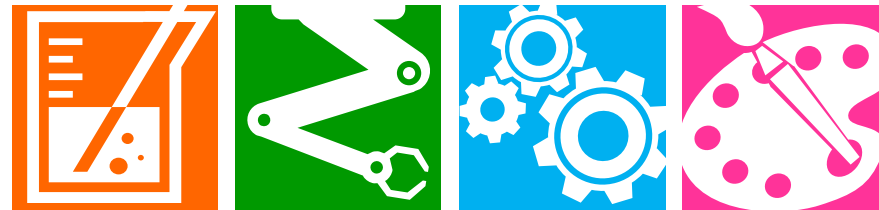
Professional Membership







Student Activities





**GEMASTIK – SCIENTIFIC PAPER
COMPETITION 2019**



**STUDENT EXCHANGE AJOU UNIVERSITY,
SOUTH KOREA 2019**



IT TODAY - IPB (2019)



Juara 2
CyberAngel
Universitas Padjajaran



GEMASTIK 11 - ITS (2018)



Hackavidia (2018)



Codig - Mercu Buana
University (2018)



Company Visit



Updating & Upgrading Knowledge



Tadabur Alam HIMATIF & IKA TI



**INTEGGER UX COMPETITION
2019**



**SEED FOR FUTURE - HUAWEI
2019**



**HOLOGY – BUSINESS IT CASE –
UNIV. BRAWIJAYA 2019**



Indonesian International Student Mobility Awards 2022. Country: Hungary



3/3



Muhammad Attila An Naufal
140810200048

IISMA 2022 Awardee: IISMA Szeged 2022

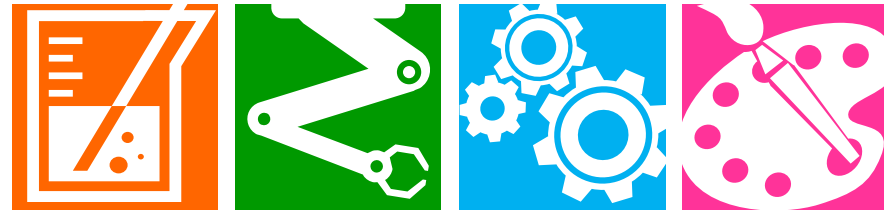


Rafa Azka Ulinuha
140810200033

IISMA 2022 Awardee: IISMA Szeged 2022



Research



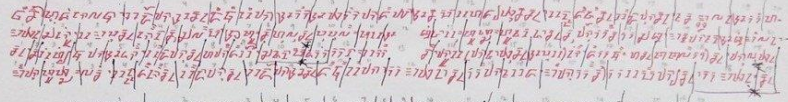


Lontar Digitalization



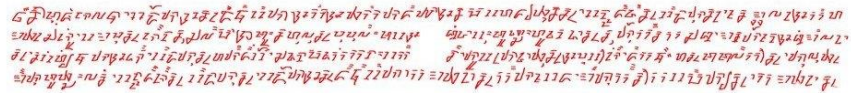
Manuscript Transliteration

1. 3306.tiff



- (1) ngeu^{nm} bujanggalawa/ saurtaandeuwisita/ akiyakitalinya/ anak sahadayunan/ sa-rwa^{deung} cungsiutun/ nembal/aki ha-
- (2) mayangong/ samapungeura nu calik/ ebohahulumpupulih/ basaingngasuhbonyach/ horénganputurkeun kaca/ mantaré/aingmilanga
- (3) n/ nasanghyangwatanggeung/ silunhateudingsir/ carekkéng karahakini/ tostangayunapussugeung/ dikawihhan¹¹/babalikan¹¹/ tuluy,
- (4) metubonyach¹¹lanang/ sa-rwa^{deung} cungsiutun/ saurtaandeuwisita/ kamayangankitaseda/ metukeu^{nm} kasaktyin/ kamayangaraing

Ground Truth Binerization



Segmentation & Annotation in Word Level

```

New Text Document - Notepad
File Edit Format View Help
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xsi:schemaLocation="http://schema.primaresearch.org/PAGE/gts/pagecontent/2013-07-15
http://schema.primaresearch.org/PAGE/gts/pagecontent/2013-07-15/pagecontent.xsd">
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<Creator></Creator>
<Created>2015-10-04T21:40:38</Created>
<LastChange>2015-10-08T07:50:07</LastChange></Metadata>
<Page ImageFilename="3306_new.tiff" ImageWidth="3025" ImageHeight="326">
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<Coords points="0,0,1,0,1,1,0,1,1"/>
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<Coords points="0,0,1,0,1,1,0,1,1"/>
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</Unicode>
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Segmentation & Annotation in Syllables Level

Research in Ancient Manuscripts Imaging : AMADI

Universitas Padjadjaran

Université de La Rochelle

Universitas Pendidikan Ganesha

Institut De Technologie Du Cambodge



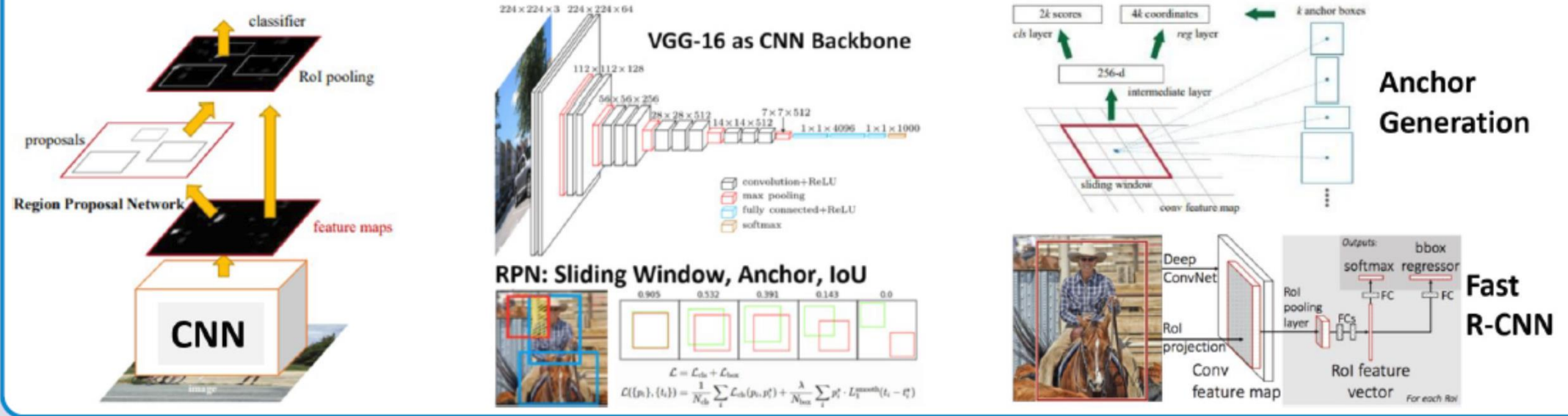
Research in Ancient Manuscripts Imaging: **AMIRA**

The screenshot displays the AMIRA website interface. At the top left, there is a logo and the text "AMIRA Ancient Manuscript Image Retrieval and Analysis". At the top right, there is a "login" button. The main content area features a background image of a hand holding a lontar manuscript. A yellow search bar is overlaid on the image with the text "LONTAR SUNDA IMAGE SEARCH". At the bottom, there is a dark blue footer with the text "Copyright 2019. Amira Unpad".

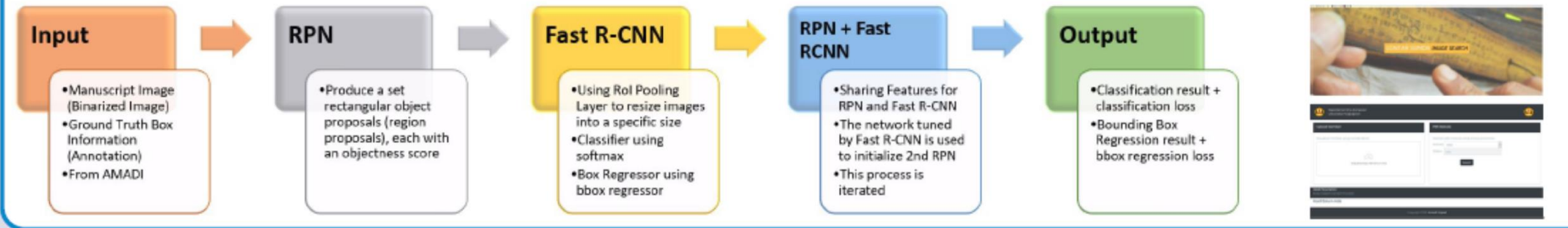


AMIRA

METHOD : FASTER REGION CONVOLUTIONAL NEURAL NETWORK (FASTER R-CNN)



EXPERIMENT





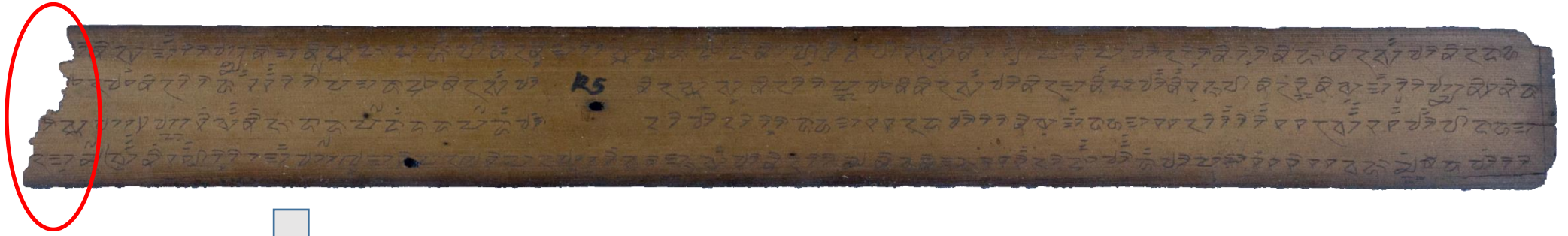
Research in Ancient Manuscripts Imaging: **DREAM**



DREAM : Digital Restoration and Enhancement of Ancient Manuscripts. Koleksi citra digital pada <http://amadi.unpad.ac.id> akan di-restorasi dan di-*enhance* sehingga bisa diperoleh citra digital yang representatif untuk mendukung proses AMADI dan AMIRA.



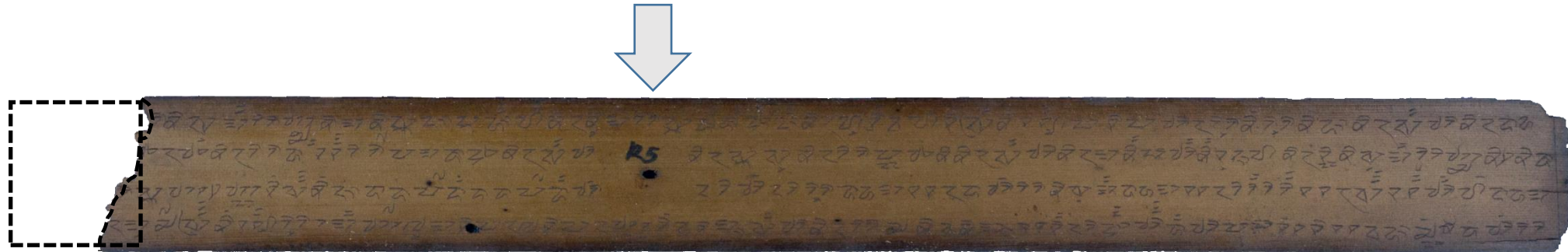
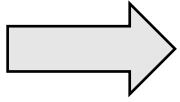
DREAM: Synthetic Lontar Generation



Missing characters identification



Generate synthetic background and missing characters





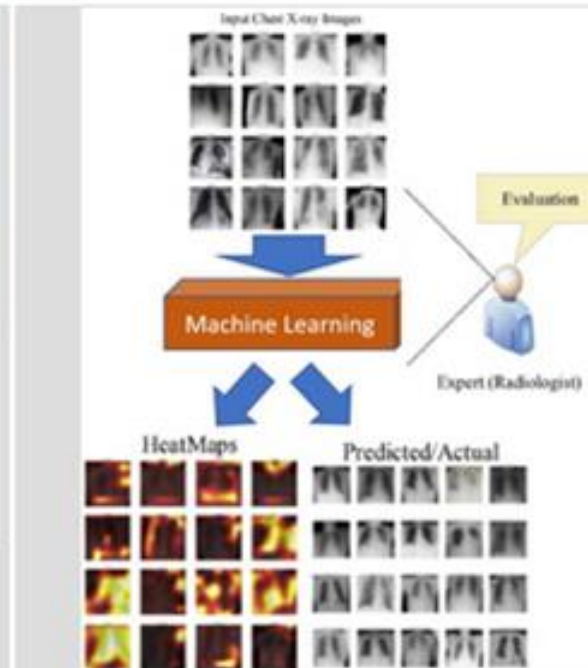
Other Research

Face Mask Detection (DEMAS)

Social Distance Analyzer (SODIM)

Smart X-Ray Images Detection for Covid-19 Cases (XCOVID)

BukaPintu : Sistem Pembuka Pintu Otomatis Berbasis Pengenalan Wajah



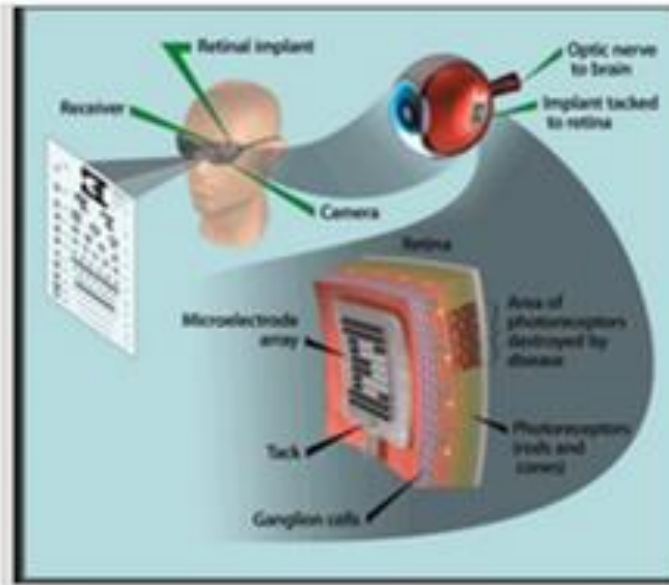


Other Research

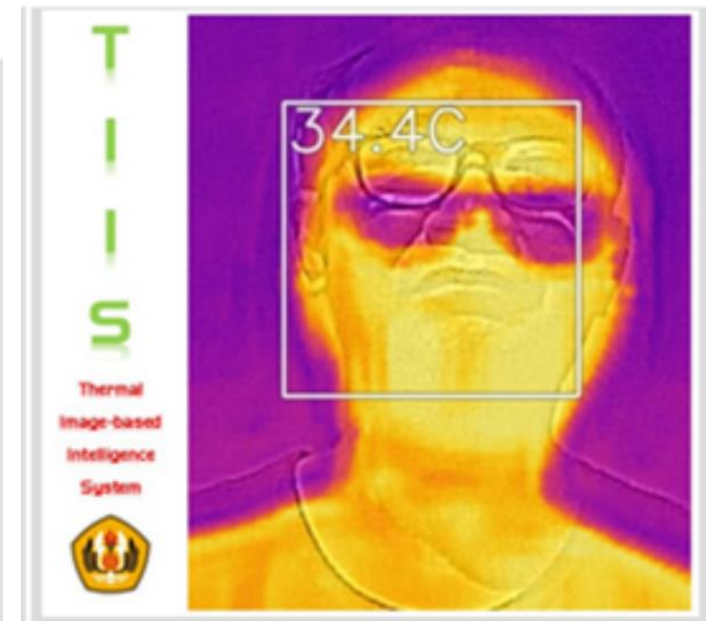
Automatic Facial Expression Recognition and Analysis (FERA)



Vispro/B-Eye



Thermal Image-based Intelligent System (TIIS)

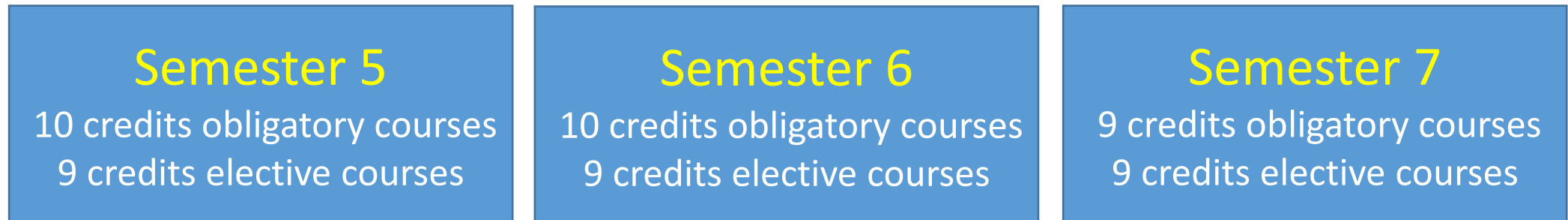
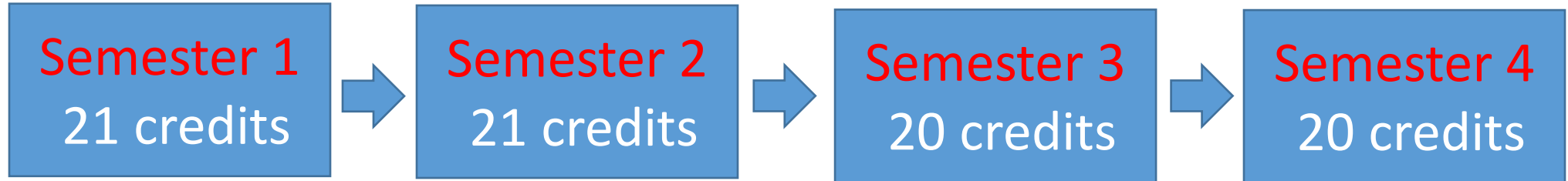


CURRICULUM

Undergraduate Computer Science Program

- **Use Credit Semester System**
 - **1 Credit equivalent with**
 - 50 minutes of face-to-face teaching
 - 50 minutes of assignment
 - 50 minutes of self learning and preparation
- **4-year study**
- **Based on ACM-IEEE Computing Curricula**
- **Concentration**
 - *Computation Modelling*
 - **Information system and multimedia**
 - **Graphical and Intelligent Systems**
 - **Networking and Data Communication**

CURRICULUM FRAMEWORK



SEMESTER 1

- 1. Religion**
- 2. Basic Principles of Indonesia**
- 3. Bahasa Indonesia**
- 4. Sport, Physical Fitness, and Creativity**
- 5. Basic Calculus**
- 6. Information Logic**
- 7. Algorithm**
- 8. Introduction to Computer and Information Technology**

SEMESTER 2

- 1. English**
- 2. Citizenship**
- 3. Advance Calculue**
- 4. Informatics Physics**
- 5. Statistics**
- 6. Data Structures**
- 7. Computer Organization and Architectures**
- 8. Basic Database System**

SEMESTER 3

- 1. Linear Algebra**
- 2. Numerical Methods**
- 3. Discrete Mathematics**
- 4. Operating System**
- 5. Web Programming**
- 6. Object Oriented Programming**
- 7. Advance Database System**

SEMESTER 4

- 1. English for Academic Purposes**
- 2. Operational Research**
- 3. Artificial Intelligence**
- 4. Computer Networks**
- 5. Information System**
- 6. Personal Character Building**
- 7. Algorithm Analysis**
- 8. Ethics**

SEMESTER 5

- 1. Telematics**
- 2. Entrepreneurship**
- 3. Software Engineering**
- 4. Research Methods**
- 5. Elective 1**
- 6. Elective 2**
- 7. Elective 3 (free)**

SEMESTER 6

- 1. Human Computer Interaction**
- 2. Language Theory and Automata**
- 3. Medium Scale Software Projects**
- 4. Data Warehouse**
- 5. Elective 1**
- 6. Elective 2**
- 7. Elective 3 (free)**

SEMESTER 7

- 1. Data Mining**
- 2. Large Scale Software Project**
- 3. Software Project Management**
- 4. Internship**
- 5. Elective 1**
- 6. Elective 2**
- 7. Elective 3 (free)**

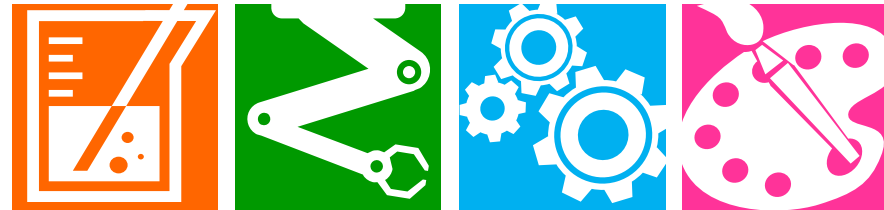
SEMESTER 8

- 1. Final Project/Thesis Seminar**
- 2. Final Project/Thesis Writing**

Courses Characteristics

- Obligatory courses
- Elective Courses, start from 5th semester till 7th semester
 - Obligatory for selected concentration (6 credits)
 - Free for all concentration (3 credits)
- Some courses have laboratory works (practicum)
- Are organized in online, offline, and hybrid (depend on the profs)

Information Link





<http://informatika.unpad.ac.id>
(under renovation)

University website : <http://www.unpad.ac.id>

Faculty website : <http://fmipa.unpad.ac.id>

Setiawan Hadi: setiawanhadi@unpad.ac.id



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Terima Kasih

Thank You

Dankje