



# HUMAN CENTRIC MULTIMEDIA

LABORATORY



Gedung Pascasarjana Kampus PENS- PS 09.02  
Jalan Raya ITS, Sukolilo Surabaya, 60111





# COMPANY

## Vision

To be the Centre of excellence in Research Group in the field of Human Centric & Multimedia nationally and Internationally.

## Mission

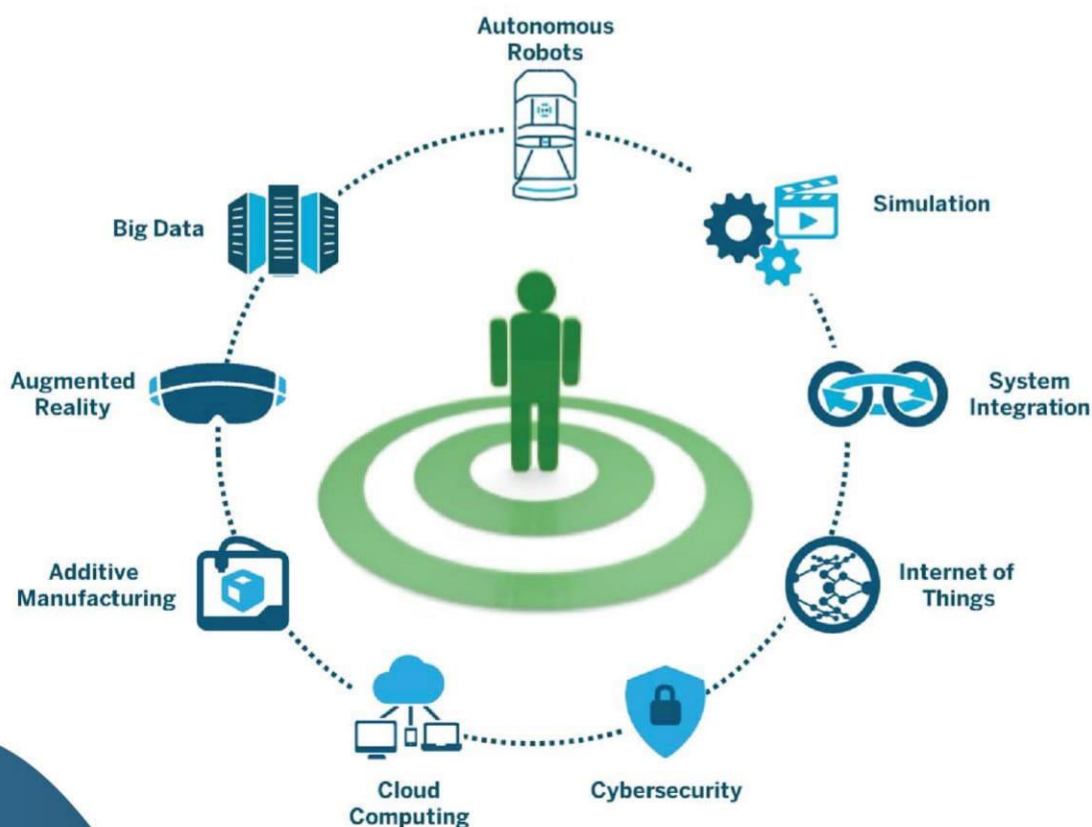
- Conduct research to combine or integrate the Internet of Everything technologies for the development or discovery of a new technology to the benefit of the community based on Human Centric.
- Actively participate in developing and implementing the Internet of Everything technologies for Human Centric in Indonesia as the national research group.

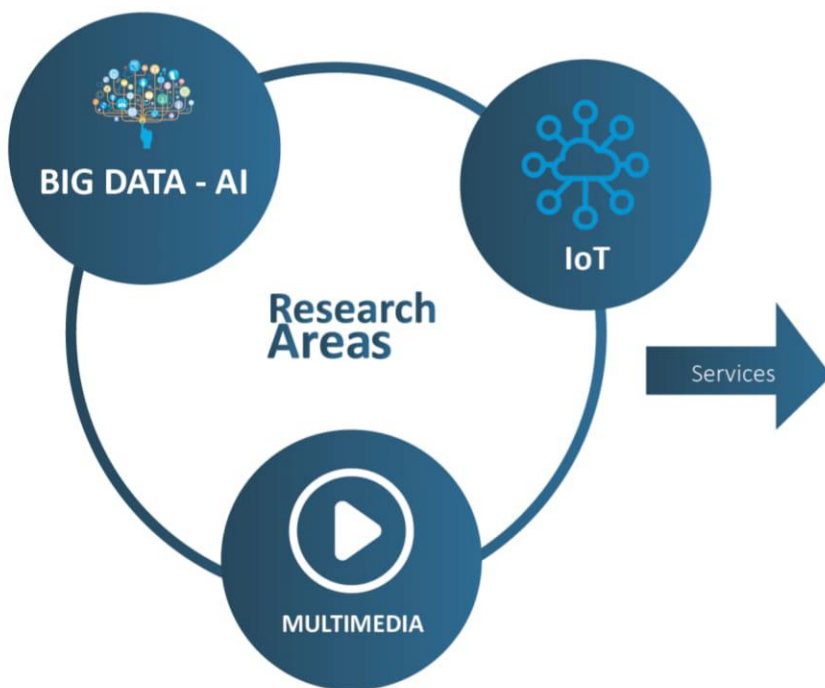


# OVERVIEW

## Collaborate with Human Centric Multimedia Lab

The Industrial Revolution 4.0 makes the presence of computing devices in everyday life increases. This motivates computer scientists and engineers to work in a trans-disciplinary team to study and design the effective human-machine interaction. Human Centric Multimedia has a goal to develop technology where machines adapt to users to produce elegant interactions by enhancing perceptions, sensations, and human cognition regardless of their instinctive abilities.





- System Integration
- Software Development
- Research and Development
- Consultant
- Training

## A decorative graphic consisting of two rows of eight small grey dots each, arranged in a rectangular pattern.

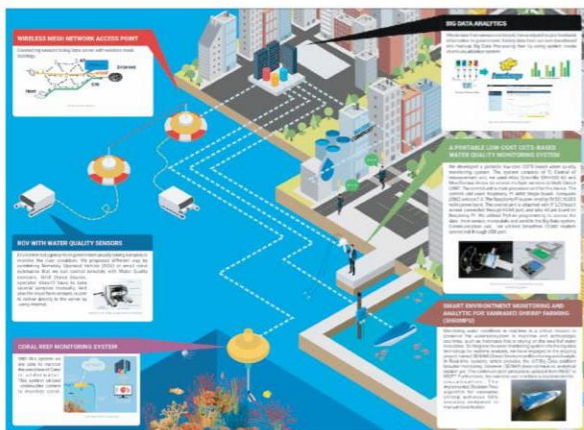
## Cloud Computing



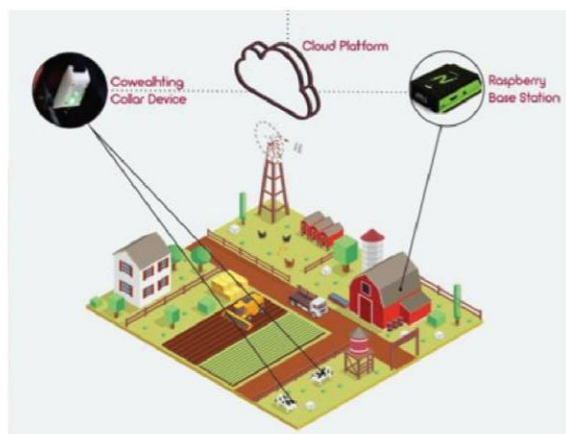


# The Internet of things (IoT)

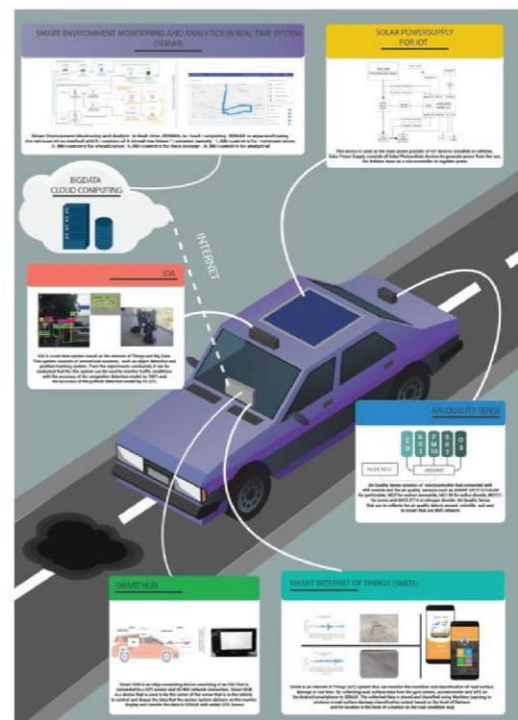
Internet of Things, we provide integration of a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction. As a system integrator we develop solution by using fusion-sensors, embedded systems as edge computing, collecting data to Internet and Analyze the data. Examples: Smart Environment Monitoring & Analytic in Real-Time system (SEMAR), Vehicle as a Mobile Sensor Network (VaaMSN), and COWhealthing.



SEMAR



COWealthing



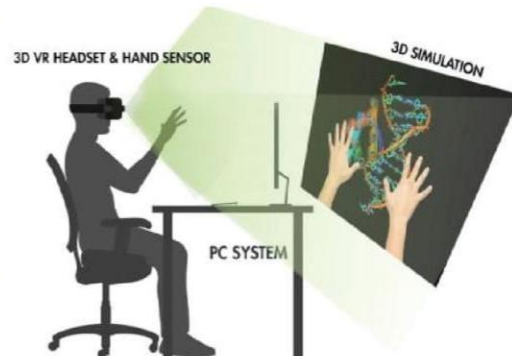
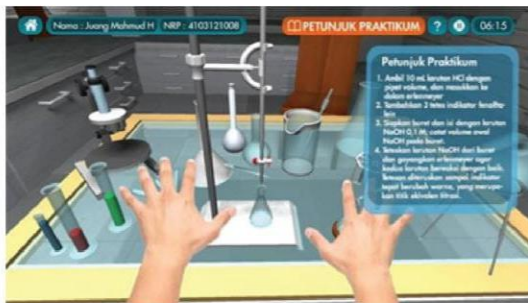
VaaMSN

# MULTIMEDIA



AR Smartglass

Multimedia, by utilize technologies such as Augmented Reality (AR), Virtual Reality (VR) and Mixed Reality (MR), we give solution for our client to have easy interaction with real-world. Various applications can be integrated such as E-commerce, maps, game and entertainment and several cases can be use for design, education, healthcare, or retail commerce.



Virtual Reality Lab

# OUR SPONSORS





# OUR CLIENTS



**QUANTUM HRM  
INTERNASIONAL**



**BPKH**  
BADAN PENGELOLA  
KEUANGAN HAJI



Komite Nasional Keuangan Syariah



**Dispendukcapil  
Surabaya**



**KOTAMADYA  
SURABAYA**





## research grants

- 2018 Implementasi Vehicle as a Mobile Sensor Network terintegrasi dengan Smart Environment Monitoring and Analytics in Real-time (SEMAR) system sebagai Pemantau Permukaan Jalan dan Lingkungan untuk mendukung Smart City** DIKTI  
Penelitian Terapan Unggulan Perguruan Tinggi (Lead) - year: 1 of 3 - Rp. 120.000.000,-
- 2018 Implementasi Teknologi Portable Ubiquitous Health (U-Health) Dengan Layanan Cloud Untuk Mendukung Smart Health Buatan Indonesia** DIKTI  
Penelitian Terapan Unggulan Perguruan Tinggi (Member) - year: 1 of 3 - Rp. 120.000.000,-
- 2018 Revitalisasi Sistem Jejaring Radio HF Untuk Mendukung Implementasi Jejaring Radio Pemerintah – GRN** DIKTI  
Penelitian Terapan Unggulan Perguruan Tinggi (Member) - year: 1 of 3 - Rp. 130.000.000,-
- 2018 Pusat Pendidikan dan Pelatihan Embedded System Bersertifikasi Sebagai Upaya Penyediaan Sumber Daya Manusia Menjelang Masyarakat Ekonomi ASEAN** DIKTI  
Ipteks Bagi Inovasi Kreativitas Kampus (Member) - year: 3 of 3 - Rp. 150.000.000,- + Rp 50.000.000,-
- 2018 Industrial Edge Computing** CISCO System Indonesia  
inKind
- 2018 Industrial Internet of Things** Ichii Industries Indonesia  
inKind
- 2018 IoT - Smartglass for Industrial Factory Assistant** TMMIN  
inKind
- 2017 DESIGN AND DEVELOPMENT OF UNMANNED UNDERWATER VEHICLES FOR ENVIRONMENTAL MONITORING AND DATA ACQUISITION COMPATIBLE WITH 5D WORLD MAP SYSTEM IN INTERNET OF UNDERWATER THINGS** DIKTI  
Penelitian Kerjasama Luar Negeri dan Publikasi International - year: 3 of 3 - Rp. 151.000.000,-
- 2017 Pusat Pendidikan dan Pelatihan Embedded System Bersertifikasi Sebagai Upaya Penyediaan Sumber Daya Manusia Menjelang Masyarakat Ekonomi ASEAN** DIKTI  
Ipteks Bagi Inovasi Kreativitas Kampus - year: 2 of 3 - Rp. 189.000.000,- + Rp 50.000.000,-
- 2017 Industrial Internet of Things** Ichii Industries Indonesia  
inKind
- 2017 CSR for Robotics and IoT** TMMIN  
inKind

# research grants

- 2016 DESIGN AND DEVELOPMENT OF UNMANNED UNDERWATER VEHICLES FOR ENVIRONMENTAL MONITORING AND DATA ACQUISITION COMPATIBLE WITH 5D WORLD MAP SYSTEM IN INTERNET OF UNDERWATER THINGS** DIKTI  
Penelitian Kerjasama Luar Negeri dan Publikasi International - year: 2 of 3 - Rp. 160.000.000,-
- 2016 Pusat Pendidikan dan Pelatihan Embedded System Bersertifikasi Sebagai Upaya Penyediaan Sumber Daya Manusia Menjelang Masyarakat Ekonomi ASEAN** DIKTI  
Ipteks Bagi Inovasi Kreativitas Kampus - year: 1 of 3 - Rp. 189.000.000,- + Rp 50.000.000,-
- 2015 DESIGN AND DEVELOPMENT OF UNMANNED UNDERWATER VEHICLES FOR ENVIRONMENTAL MONITORING AND DATA ACQUISITION COMPATIBLE WITH 5D WORLD MAP SYSTEM IN INTERNET OF UNDERWATER THINGS** DIKTI  
Penelitian Kerjasama Luar Negeri dan Publikasi International - year: 1 of 3 - Rp. 157.500.000,-
- 2015 Virtual Reality Lab sebagai penunjang Perkuliahan Terbuka Jarak Jauh (PTJJ)** Seamolec  
Penelitian Hibah PTJJ Seamolec - Rp 10.000.000,-
- 2014 PENGEMBANGAN ARSITEKTUR KOMPUTASI DAN SISTEM OPERASI ROBOTIKA UNTUK PENINGKATAN DAYA SAING APLIKASI ROBOTIKA NASIONAL** DIKTI  
Penelitian Unggulan Perguruan Tinggi - year: 2 of 5 - Rp 200.000.000,-
- 2005 Rancang Bangun Prototype Mesin Verifikasi Sidik Jari Compact and Mobile dengan Algoritma Phase-Only Correlation Berbasis Embedded System** DIKTI  
Penelitian Hibah Bersaing - Rp 40.000.000,-
- 2005 Studi dan Penerapan Teknologi Biometric Fingerprint Matching – Phase Only Correlation Pada Embedded System** DIKTI  
Penelitian Dosen Muda - Rp 10.000.000,-



# publications

- 2019 Big Data Technologies using SVM (Case Study: Surface Water Classification on Regional Water Utility)**  
Proceedings - 2019 International Conference on Computer Science, Information Technology, and Electri | vol: | issue : | 2019-10-01 | Conference Proceedin
- 2019 A Dialectic Approach in Montage Movie**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 Participatory Design with Children in Designing a Smartphone Holder**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 Development of Animatic Comic Website: The Lifestory of Pangeran Diponegoro**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 Web Explainer for Children's Education with Image Recognition Based on Deep Learning**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 IES 2019 Welcome Message from General Chair**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 AT-Mo: Wireless Data Collection System for Physiology Monitoring of Athlete**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 Vending Machine Monitoring System Integrated with Webserver**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 Brightness on LEDs for Light Fidelity Applications and Measurements**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 Implementation of K-NN Fingerprint Method on Receiving Server for Indoor Mobile Object Tracking**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 Implementation QR Code Biometric Authentication for Online Payment**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin





# publications

- 2019 Comparison of Video IPTV and Digital TV DVB-T2 Quality for Indonesia TV Broadcast**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 Web Explainer for Children'ss Education with Image Recognition Based on Deep Learning**  
IIES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 Implementation of Motion Capture System for Swimmer Athlete Monitoring**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 Identification of Symptoms Based on Natural Language Processing (NLP) for Disease Diagnosis Based on**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 Designing of a Smart Collar for Dairy Cow Behavior Monitoring with Application Monitoring in Microse**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 ArmChain - A Blockchain Based Sensor Data Communication for the Vehicle as a Mobile Sensor Network**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 Pothole Visual Detection using Machine Learning Method integrated with Internet of Thing Video Strea**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 Image and Video Transmission in Nanonetworks**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 Brightness on LEDs for Light Fidelity Applications and Measurements**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin
- 2019 Implementation of Motion Capture System for Swimmer Athlete Monitoring**  
IES 2019 - International Electronics Symposium: The Role of Techno-Intelligence in Creating an Open | vol: | issue : | 2019-09-01 | Conference Proceedin

# publications

- 2019 The Vehicle as a Mobile Sensor Network base IoT and Big Data for Pothole Detection Caused by Flood D**  
IOP Conference Series: Earth and Environmental Science | vol: 239 | issue : 1 | 2019-02-18  
| Conference Proceedin
- 2019 Message Passing Support for FLoW Microkernel**  
International Electronics Symposium on Knowledge Creation and Intelligent Computing,  
IES-KCIC 2018 - | vol: | issue : | 2019-01-28 | Conference Proceedin
- 2019 Faster R-CNN Implementation Method for multi-fruit Detection using Tensorflow Platform**  
International Electronics Symposium on Knowledge Creation and Intelligent Computing,  
IES-KCIC 2018 - | vol: | issue : | 2019-01-28 | Conference Proceedin
- 2019 Implementation of Microservice Architectures on SEMAR Extension for Air Quality Monitoring**  
International Electronics Symposium on Knowledge Creation and Intelligent Computing,  
IES-KCIC 2018 - | vol: | issue : | 2019-01-28 | Conference Proceedin
- 2019 Virtual hand: VR hand controller using IMU and flex sensor**  
International Electronics Symposium on Knowledge Creation and Intelligent Computing,  
IES-KCIC 2018 - | vol: | issue : | 2019-01-28 | Conference Proceedin
- 2019 Visualization of Gathering Sources of News by Journalist**  
International Electronics Symposium on Knowledge Creation and Intelligent Computing,  
IES-KCIC 2018 - | vol: | issue : | 2019-01-28 | Conference Proceedin
- 2019 Making Short Movie Using 3D Professional Camera**  
International Electronics Symposium on Knowledge Creation and Intelligent Computing,  
IES-KCIC 2018 - | vol: | issue : | 2019-01-28 | Conference Proceedin
- 2019 Visualization of Gathering Sources of News by Journalist**  
International Electronics Symposium on Knowledge Creation and Intelligent Computing,  
IES-KCIC 2018 - | vol: | issue : | 2019-01-28 | Conference Proceedin
- 2019 Making Short Movie Using 3D Professional Camera**  
International Electronics Symposium on Knowledge Creation and Intelligent Computing,  
IES-KCIC 2018 - | vol: | issue : | 2019-01-28 | Conference Proceedin
- 2019 Learning Batik Through Gaming**  
International Electronics Symposium on Knowledge Creation and Intelligent Computing,  
IES-KCIC 2018 - | vol: | issue : | 2019-01-28 | Conference Proceedin
- 2019 A Spots Independent for NVIS Channels Observation**  
2018 International Electronics Symposium on Engineering Technology and Applications,  
IES-ETA 2018 - | vol: | issue : | 2019-01-16 | Conference Proceedin

# publications

- 2019 Implementation of Data Abstraction Layer using Kafka on SEMAR Platform for Air Quality Monitoring**  
International Journal on Advanced Science, Engineering and Information Technology | vol: 9  
| issue : 5 | 2019-01-01 | Journal
- 2018 Implementation of Integration VaaMSN and SEMAR for Wide Coverage Air Quality Monitoring**  
Telkomnika (Telecommunication Computing Electronics and Control) | vol: 16 | issue : 6 |  
2018-12-01 | Journal
- 2018 Design and Development of Portable Spirometer**  
2018 IEEE International Conference on Consumer Electronics-Taiwan, ICCE-TW 2018 | vol: |  
issue : | 2018-08-27 | Conference Proceedin
- 2018 MatCounter: Footsteps Counter Using DanceMat by Bluetooth Based Android Application**  
2018 International Conference on Computer Engineering, Network and Intelligent Multime-  
dia, CENIM 201 | vol: | issue : | 2018-07-02 | Conference Proceedin
- 2018 Web-based Business to Customer (B2C) Implementation on Rekamin.ID: the Unmanned Aerial Vehicle (UAV)**  
2018 International Conference on Computer Engineering, Network and Intelligent  
Multimedia, CENIM 201 | vol: | issue : | 2018-07-02 | Conference Proceedin
- 2018 Design and Development of Smart Aquaculture System Based on IFTTT Model and Cloud Integration**  
MATEC Web of Conferences | vol: 164 | issue : | 2018-04-23 | Conference Proceedin
- 2018 The Role of Tangible Interfaces in Enhancing Children s Engagement in Learning**  
MATEC Web of Conferences | vol: 164 | issue : | 2018-04-23 | Conference Proceedin
- 2018 Integration Head Mounted Display Device and Hand Motion Gesture Device for Virtual Reality Laborator**  
IOP Conference Series: Materials Science and Engineering | vol: 288 | issue : 1 | 2018-01-25  
| Conference Proceedin
- 2018 Distributed Database Semantic Integration of Wireless Sensor Network to Access The Environmental Mon**  
International Journal of Engineering and Technology Innovation | vol: 8 | issue : 3 |  
2018-01-01 | Journal
- 2017 Simple and energy efficient discrete cosine transform based image compression for simple pulse-based**  
Proceedings IES-ETA 2017 - International Electronics Symposium on Engineering Technology  
and Applica | vol: 2017-December | issue : | 2017-12-26 | Conference Proceedin





# publications

- 2017 Multi Process Matching Depth Image Between Stereo Camera and Structure Sensor in Realtime**  
Proceedings IES-ETA 2017 - International Electronics Symposium on Engineering Technology and Applica | vol: 2017-December | issue : | 2017-12-26 | Conference Proceedin
- 2017 Digital Signature on File Using Biometric Fingerprint with Fingerprint Sensor on Smartphone**  
Proceedings IES-ETA 2017 - International Electronics Symposium on Engineering Technology and Applica | vol: 2017-December | issue : | 2017-12-26 | Conference Proceedin
- 2017 Simple and Energy Efficient Discrete Cosine Transform Based Image Compression for Simple Pulse-Based**  
Proceedings IES-ETA 2017 - International Electronics Symposium on Engineering Technology and Applica | vol: 2017-December | issue : | 2017-12-26 | Conference Proceedin
- 2017 Design and Development Virtual Reality Athletic - Virtual Imagery to Train Sprinter Concentration**  
Proceedings - International Electronics Symposium on Knowledge Creation and Intelligent Computing, I | vol: 2017-January | issue : | 2017-12-19 | Conference Proceedin
- 2017 True Random and Adjustable Memory Management Evaluation Framework with Markov Chain**  
Proceedings - International Electronics Symposium on Knowledge Creation and Intelligent Computing, I | vol: 2017-January | issue : | 2017-12-19 | Conference Proceedin
- 2017 Preliminary Design of Mobile Visual Programming Apps for Internet of Things Applications Based on Ra**  
Proceedings - International Electronics Symposium on Knowledge Creation and Intelligent Computing, I | vol: 2017-January | issue : | 2017-12-19 | Conference Proceedin
- 2017 Simple and Energy Efficient Image Compression for Pulse-Based Communication in Thz Band**  
Proceedings - International Conference on Advanced Information Networking and Applications, AINA | vol: | issue : | 2017-05-05 | Conference Proceedin
- 2017 FloW Vision: Depth Image Enhancement by Combining Stereo RGB-Depth Sensor**  
2016 International Conference on Knowledge Creation and Intelligent Computing, KCIC 2016 | vol: | issue : | 2017-03-20 | Conference Proceedin
- 2017 Welcome Message from General Chair of IES 2016**  
Proceedings - 2016 International Electronics Symposium, IES 2016 | vol: | issue : | 2017-02-21 | Conference Proceedin



# publications

- 2017 Design and Implementation of Smart Environment Monitoring and Analytics in Real-Time System Framework**  
Proceedings - 2016 International Electronics Symposium, IES 2016 | vol: | issue : | 2017-02-21 | Conference Proceedin
- 2017 Preliminary Design of Interactive Visual Mobile Programming on educational robot ADROIT V1**  
Proceedings - 2016 International Electronics Symposium, IES 2016 | vol: | issue : | 2017-02-21 | Conference Proceedin
- 2017 Design and Development of A Portable Low-Cost COTS-Based Water Quality Monitoring System**  
Proceeding - 2016 International Seminar on Intelligent Technology and Its Application, ISITIA 2016: | vol: | issue : | 2017-01-20 | Conference Proceedin
- 2017 Real Time Global Scheduling Analysis for Generalized Dag Task Upon Heterogeneous Machine**  
Journal of Telecommunication, Electronic and Computer Engineering | vol: 9 | issue : 2-5 | 2017-01-01 | Journal
- 2017 Design and Development of Low Cost Coral Monitoring System for Shallow Water Based on Internet of UN**  
Journal of Telecommunication, Electronic and Computer Engineering | vol: 9 | issue : 2-5 | 2017-01-01 | Journal
- 2017 Merging of Depth Image Between Stereo Camera and Structure Sensor on Robot "flow" Vision**  
International Journal on Advanced Science, Engineering and Information Technology | vol: 7 | issue : 3 | 2017-01-01 | Journal

# final project

Afis Asryullah P.	<b>Front End Web Based Person Action Recognition for Workers' Performance Evaluation</b>
Ahmad Faiq Naufal	<b>Athlete Condition Data Analytical System on the Smart-Monitoring Athletic System</b>
Avif Prima Nuryanto	<b>Development of Mobile Apps-Multisensor Integration System for Smart-Monitoring Athletic Platform</b>
Bernadeth Yola	<b>Documentary Film : The Dragon Memo</b>
Claudia Labertha	<b>Gamification : Traffic and Road Signs</b>
Dede Fitriana	<b>Web Pembelajaran untuk Anak Tuna Rungu dengan Image Recognition Berbasis Deep Learning</b>
Dynda Rakasiwi D.	<b>Pembuatan Video Stopmotion Tentang Bahaya Penggunaan Smartphone pada Anak</b>
Erlangga Hendrika	<b>Virtual Engineering Development as Implementation of Cyber Physical System of Industry 4.0 (Sub : 3D Assets)</b>
Hania Dewi F.	<b>The Art of Storytelling in Museum W.R. Supratman</b>
Harum Flora A.	<b>Aplikasi Android untuk Anak Tuna Rungu dengan Image Recognition Berbasis Deep Learning</b>
Hudzaifah R.	<b>Implementasi Virtual Engineering: Pembuatan Aset Otomatis Menggunakan 3D Scanner untuk Aplikasi VR</b>
Ilham Achmad	<b>Virtual Engineering Development as Implementation of Cyber Physical System of Industry 4.0 (Sub : Simulation)</b>
Indah Permataning	<b>Video Pengembangan Makanan Tradisional Indonesia</b>
Juniarty Pradifta	<b>Simulasi dan Implementasi Antena Loop sebagai Aplikasi Penerima TV Digital</b>
M. Alfandi	<b>Rancang Bangun IPTV untuk Media Delivery Konten MMB</b>
M. Bagus R.	<b>Pembuatan Sistem Transmisi Suara Melalui Cahaya</b>



# final project



Mifta Nauval	<b>Cinematic Movie for Museum W.R. Supratman</b>
Muhammad Irfan R.	<b>Visualization Development For Smart-Monitoring Athletic Platform</b>
Naufal Adi Satrio	<b>Virtual Engineering Development as Implementation of Cyber Physical System of Industry 4.0 (Sub : User Interaction)</b>
Nita Dwi	<b>Pembuatan Web untuk Komersialisasi Tempat Wisata di Bojonegoro</b>
Raden Dimas B.	<b>Media Pembelajaran Interaktif untuk Melatih Kemandirian Anak Berkebutuhan Khusus</b>
Samira Rahma	<b>Branding for Bara Creative</b>
Sandy Arif W.	<b>Implementasi Virtual Engineering: VR Platform</b>
Septian Eka S.	<b>Pembuatan Animasi Pembelajaran Sinyal pada Domain Frekuensi</b>
Siti Anisa	<b>Aplikasi Virtual Lipstik Berbasis Deep Learning</b>
Siti Cesaria Sahdela	<b>Cinematic Movie for Museum W.R. Supratman</b>

# thesis

<b>Arther Wilem Cornelius Ti</b>	Blockchain Based Proxy Re-encryption Scheme For Secure File Sharing in The Decentralized System
<b>Dhodit Rengga Tisna</b>	Wireless Body Area Network untuk Pemantauan E-Health pada Olahragawan
<b>Muhammad Fajrul Falah</b>	Design of Virtual Engineering and Digital Twin Platform as Implementation of Cyber Physical Systems
<b>Tamara Maharani</b>	Sistem Komunikasi Multimedia pada Kanal Terahertz Band
<b>Yohanes Yohanie Fridelin P.</b>	Implememtasi Backend Service Pada Human-in-The-Loop System





# Faculty Members of Human Centric Multimedia



**S. Sukaridhoto, ST, Ph.D**

IoT, BigData, AI



**M. Agus Z, ST, MT, Ph.D**

Telecommunication,  
Multimedia



**Dr.-Ing. Hestiasari Rante, ST., M.Sc.**

Human Computer Interaction,  
Educational Technology



**Rahardhita Widyatra, S.ST, M.T., Ph.D**

Wireless Network, IoT



**Dwi Kurnia Basuki, S.Si., M.Kom**

Software Engineering, Mathematics



# Student Members of **Human Centric Multimedia**

## Graduate School



**Arther**



**Dodit**



**Falah**



**Tamara**



**Yohan**

## Undergraduate School



**Afis**



**Anisa**



**Avif**



**Bagas**



**Claudia**



**Dede**



**Dela**



**Difta**



**Dimas**



**Erlangga**



**Faiq**



**Fandi**



**Harum**



**Hani**



**Huda**

# Student Members of Human Centric Multimedia

Undergraduate School



**Ilham**



**Indah**



**Irfan**



**Mira**



**Naufal**



**Nita**



**Raka**



**Razzaq**



**Sandy**



**Septian**



**Uvan**



**Yola**





# AWARDS

- 2019 Yogi Putra Pratama, Fiannurdin  
**Juara 3 IoT Makers Creation Kemenperin & Kominfo**
- 2019 Yogi Putra Pratama  
**Juara 1 Teknologi Tepat Guna 2019 Dinas Ketahanan Pangan Kota Surabaya**
- 2019 Yogi Putra Pratama  
**Juara 1 KMIPN**
- 2019 Mochammad Rifki Ulil Albaab  
**1st Final Project Competition Program Pascasarjana**
- 2019 Fariz Bramasta P.  
**1st Final Project Competition Program Studi D4 Teknik Komputer**
- 2019 Ika Fadhillah, Sandi Bayu  
**3rd Final Project Competition Program Studi D3 Multimedia Broadcasting**
- 2019 Mochammad Rifki Ulil Albaab  
**1st Poster International Conference Transportation and Inovation**
- 2018 Yogi Putra Pratama, Heri Yulianus  
**Juara 3 Business Matching**
- 2018 Yogi Putra Pratama  
**Juara 2 MAGE IOT Competition**
- 2018 Yogi Putra Pratama  
**Best Paper Award IES**
- 2018 Yohanes Yohanie Fridelin P.  
**Nomine Best Paper Award - ICW Telekomunika**
- 2018 Iskandar Dzulkarnain  
**Juara 1 FPC Program D4 Teknik Informatika Kategori PENS SKY**
- 2017 Yogi Putra Pratama, Iskandar Dzulkarnain  
**Juara 2 Dilo Hackathon Festival Jawa Timur - Telkom Indonesia**
- 2017 Idris Setiawan  
**Juara 2 Expo Kewirausahaan Mahasiswa Indonesia (KMI) VIII Kategori Industri Produksi/Budidaya**



# AWARDS



# AWARDS





**Politeknik Elektronika Negeri Surabaya**

Gedung Pascasarjana Lt 9, Ruang PS.09.02 s/d 04

Jl Raya ITS Surabaya 60111

kontak: [hestiasari@pens.ac.id](mailto:hestiasari@pens.ac.id)





# publications

**2017 1.UI/UX Design for Metora: A Gamification Designed to Learn The Method of Journalism Interview**  
(Friskila Enggar Pamudyaningrum, Hestiasari Rante, Muhammad Agus Zainuddin)

**Visual Novel Game to Enhance Children's Awareness of Flood Mitigation**  
**2017 (Musfiqon, Hestiasari Rante, Achmad Basuki, Felix Pasila)**

**3D Printing Process of Making a Smartphone Holder**  
(Armita Dewi Cahyanti, Hestiasari Rante, Achmad Basuki, Felix Pasila)

**2017 Juxtaposition in Montage Movie**  
(Sheila Azizah, Hestiasari Rante, Dwi Susanto)

**Music Scoring for Film using Fruity Loops Studio**  
(Arsya Febrian, Hestiasari Rante, Sritrusta Sukaridhoto)  
**2017**

**Participatory Design in the Development of Animated Comic on Website**  
(Abdi Prasetyo, Hestiasari Rante, Dwi Susanto, Aliv Faizal Muhammad)

**2017**

**2017**

**2017**

**2017**

**2017**