



**The 2016 1st International Conference on  
Biomedical Engineering  
(iBioMed 2016)**

**Technical Program**

5-6 October 2016

Eastparc Hotel  
**Yogyakarta, Indonesia**

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## Program at a Glance iBioMed 2016

Venue: Eastparc Hotel, Yogyakarta, Indonesia

Wednesday, 5 October 2016

TIME	PROGRAM	
07:00-08:00	Registration	
08:00-09:00	Opening Ceremony	
09:00-09:50	Plenary Session 1 : Prof. Dr. Ir. Mauridhi Hery Purnomo, M.Eng	
09:50-10:10	Group photo	
10:10-10:20	Post-graduate poster session	
10:20-10:30	Coffee Break	
	<b>Dahlia Room</b>	<b>Orchid Room</b>
	Bio2: Biomed 2	Bio1: Biomed 1
10:30-10:45	Bio2-1	Bio1-1
10:45-11:00	Bio2-2	Bio1-2
11:00-11:15	Bio2-3	Bio1-3
11:15-11:30	Bio2-4	Bio1-4
11:30-11:45	Bio2-5	Bio1-5
11:45-12:00	Certificate Handover / Group Photo	
12:00-13:00	Lunch Break	
	<b>Dahlia Room</b>	<b>Orchid Room</b>
	Bio3: Biomed 3	
13:00-13:15	Bio3-1	
13:15-13:30	Bio3-2	
13:30-13:45	Bio3-3	
13:45-14:00	Bio3-4	
14:00-14:15	Bio3-5	
14:15-14:30	Certificate Handover / Group Photo	
14:30-14:45	Coffee Break	
	<b>Dahlia Room</b>	<b>Orchid Room</b>
	Bio4: Biomed 4	
14:45-16:15	Bio4-1	
14:45-15:00	Bio4-2	
15:00-15:15	Bio4-3	
15:15-15:30	Bio4-4	
15:30-15:45	Bio4-5	
15:45-16:00	Bio4-5	
16:00-16:15	Certificate Handover / Group Photo	
18:30-21:00	Gala Dinner and Award Ceremony	

Thursday, 6 October 2016

TIME	PROGRAM	
08:00-08:45	Plenary Session 2 : Prof. Dr. Yasue Mitsukura	
08:45-09:30	Plenary Session 3 : Prof. Dr. Ir. Soegijardjo Soegijoko	
09:30-10:15	Plenary Session 4 : Prof. Dr. Kazuhiko Hamamoto	
10:15-10:30	Group Photo	
10:30-10:45	Coffee Break	
	<b>Dahlia Room</b>	<b>Orchid Room</b>
	Bio5: Biomed 5	
10:45-11:00	Bio5-1	
11:00-11:15	Bio5-2	
11:15-11:30	Bio5-3	
11:30-11:45	Bio5-4	
11:45-12:00	Certificate Handover / Group Photo	
12:15-13:00	Lunch Break	
14:30-15:00	Closing Ceremony	

# iBioMed 2016 Technical Program

Wednesday, 5 October 2016

Wednesday, 5 October 2016 10:30-12:00 Orchid

## Bio1: Biomed 1

Chair: Achmad Rizal (Universitas Gadjah Mada and Telkom University, Indonesia)

- Bio1-1 A prototype of SSVEP-based BCI for home appliances control**  
Sinantya Feranti Anindya (Institut Teknologi Nasional, Indonesia); Ediana Sutjiredjeki (Politeknik Negeri Bandung (POLBAN), Indonesia); Hendi Rachmat (Institut Teknologi Nasional, Indonesia)
- Bio1-2 Simple Control Design using Double Feedback Structure for Reducing Tumor Size**  
Samiadji Herdjunanto (UGM, Indonesia)
- Bio1-3 Development of Robotic System with Optical Position Sensing for Ultrasound Theranostics**  
Kohji Masuda, Kaoru Natsume, Yoshihisa Wada and Sachie Irisawa (Tokyo University of Agriculture and Technology, Japan); Shinya Onogi (Kyushu University, Japan)
- Bio1-4 The biomechanics of walking symmetry during gait cycle in various walking condition**  
Kadek Sanjaya (Indonesian Institute of Sciences, Indonesia); Suherman Suherman (Indonesian Institute of Sciences (LIPI), Indonesia); Soomin Lee, Yoshihiro Shimomura and Tetsuo Katsuura (Chiba University, Japan)
- Bio1-5 A New Approach for Rehabilitation and Upper-Limb Prosthesis Control Using Optomyography (OMG)**  
Hamed Hamid Muhammed (School of Technology and Health STH, Royal Institute of Technology KTH, Sweden); Raghavendra Jammalamadaka (KTH Royal Institute of Technology, Sweden)

Wednesday, 5 October 2016 10:30-12:00 Dahlia

## Bio2: Biomed 2

Chair: Muhammad Kusban (Universitas Gadjah Mada, Indonesia)

- Bio2-1 ARIMA Implementation to Predict the Amount of Antiseptic Medicine Usage in Veterinary Hospital**  
Hans Pratyaksa, Adhistya Erna Permanasari, Silmi Fauziati and Ida Fitriana (UGM, Indonesia)
- Bio2-2 Emergency Alert Prediction for Elderly Based on Supervised Learning**  
Kurnianingsih Kurnianingsih (UGM & Politeknik Negeri Semarang, Indonesia); Lukito Edi Nugroho (UGM, Indonesia); Widy Widyan (UGM, Indonesia); Lutfan Lazuardi (UGM, Indonesia); Anton Satria Prabuwo (King Abdulaziz University & Universiti Kebangsaan Malaysia, Saudi Arabia)
- Bio2-3 Comparison of Radialis Sphygmomanometer in Evaluating the Blood Pressure of Healthy Volunteers**  
Hendi Handian Rachmat (Institut Teknologi Nasional (Itenas) Bandung & C2I Research Group, Indonesia)
- Bio2-4 Multimodal Image Registration for Potential Diagnosis and Monitoring of Morphoea using a Hybrid NGC Method**  
Lila Iznita Izhar (Universiti Teknologi PETRONAS, Malaysia); Tania Stathaki (Imperial College London, United Kingdom); Kevin Howell (University College of London, United Kingdom); Zaid Omar (Universiti Teknologi Malaysia & Imperial College London, IJN-UTM Cardiovascular Engineering Centre, Malaysia); Irraivan Elamvazuthi (Universiti Teknologi PETRONAS, Malaysia)
- Bio2-5 A Clustering Model for Identification of Time Course Gene Expression Patterns**  
Peter Juma Ochieng, Sri Ita Tarigan and Hendrik Didik (Bogor Agricultural University, Indonesia)

# iBioMed 2016 Technical Program

Wednesday, 5 October 2016

Wednesday, 5 October 2016 13:00-14:30 *Dahlia*

## Bio3: Biomed 3

Chair: Kurnianingsih (Universitas Gadjah Mada and Politeknik Negeri Semarang, Indonesia)

- Bio3-1 Feature Extraction For Palmprint Recognition Using Kernel-PCA With Modification in Gabor Parameters**  
Muhammad Kusban (Student Electrical Engineering, Indonesia)
- Bio3-2 Automated methodology for caries detection using panoramic radiographic imaging**  
Angel Iván García Moreno (Universidad Cuauhtémoc, Querétaro, México)
- Bio3-3 Comparison of Pre- and Post-Reconstruction Denoising Approaches in Positron Emission Tomography**  
Hamed Hamid Muhammed (School of Technology and Health STH, Royal Institute of Technology KTH, Sweden); Sicong YU (Royal Institute of Technology & School of Technology and Health, Sweden)
- Bio3-4 Localization of White Blood Cell Images using Haar Cascade Classifiers**  
Rezha Budiman (Universitas Gadjah Mada, Indonesia); Balza Achmad (Universitas Gadjah Mada (Indonesia), Indonesia); Faridah Faridah, Agus Arif, Nopriadi Nopriadi and Luthfi Zharif (Universitas Gadjah Mada, Indonesia)
- Bio3-5 Pulmonary Crackle Feature Extraction using Tsallis Entropy for Automatic Lung Sound Classification**  
Achmad Rizal (Universitas Gadjah Mada & Telkom University, Indonesia); Risanuri Hidayat (Gadjah Mada University, Indonesia); Hanung Adi Nugroho (Universitas Gadjah Mada, Indonesia)

Wednesday, 5 October 2016 14:45-16:15 *Dahlia*

## Bio4: Biomed 4

Chair: Sinantya Feranti Anindya (Institut Teknologi Nasional, Indonesia)

- Bio4-1 Segmentation of Malaria Parasite Candidates from Thick Blood Smear Microphotographs Image Using Active Contour Without Edge**  
Sekar Abidin and Umi Salamah (Sebelas Maret University, Indonesia); Anto Nugroho (BPPT, Indonesia)
- Bio4-2 Classification of Breast Ultrasound Images based on Texture Analysis**  
Made Rahmawaty (UGM & Politeknik Caltex Riau, Indonesia); Hanung Adi Nugroho (UGM, Indonesia); Yuli Triyani (UGM & Politeknik Caltex Riau, Indonesia)
- Bio4-3 A Comparison of Plasmodium Falciparum Identification from Digitalization Microscopic Thick Blood Film**  
Farah Zakiyah Rahmanti, Novita Ningrum and Prajanto Wahyu Adi (Universitas Dian Nuswantoro (UDINUS), Indonesia); Mauridhi Purnomo (Institut Teknologi Sepuluh Nopember, Indonesia)
- Bio4-4 Comparative Study on Data Mining Classification Methods for Cervical Cancer Prediction Using Pap Smear Results**  
Yulia Ery Kurniawati (UGM, Indonesia); Adhistya Erna Permanasari and Silmi Fauziati (UGM, Indonesia)
- Bio4-5 Noise Type Evaluation in Positron Emission Tomography Images**  
Hamed Hamid Muhammed (School of Technology and Health STH, Royal Institute of Technology KTH, Sweden); Sicong YU (Royal Institute of Technology & School of Technology and Health, Sweden)

# iBioMed 2016 Technical Program

Thursday, 6 October 2016

Thursday, 6 October 2016 10:45-12:15 *Dahlia*

## Bio5: Biomed 5

Chair: Dian Aryanti Hapsari (Universitas Gadjah Mada and Politeknik  
Caltex Riau, Indonesia)

- Bio5-1 Management Information Systems Development for Veterinary Hospital Patient Registration Using First In First Out Algorithm**  
Dian Aryanti Hapsari, Adhistya Erna Permanasari, Silmi Fauziati and Ida Fitriana (Universitas Gadjah Mada, Indonesia)
- Bio5-2 Pattern of Accesibility Level of Health Facilities in Yogyakarta**  
Kukuh Yuliasih Putri (Gadjah Mada University, Indonesia); Adhistya Erna Permanasari and Silmi Fauziati (Universitas Gadjah Mada, Indonesia)
- Bio5-3 Cost-Benefits, NPV, IRR and QoS Analysis of the Dynamic Telecytology System in Indonesia**  
Beni Santoso (Universitas Mercu Buana Jakarta); Rizal Broer Bahaweres (Institute Of Technology, Bandung (ITB) & IEEE, IEEE Computer, ComSoc IEEE, Indonesia); Mudrik Alaydrus (Universitas Mercu Buana, Jakarta, Indonesia)
- Bio5-4 Molecular Docking Simulation of Mangostin derivatives and Curcuminoid on Maltase-Glucoamylase Target for Searching Anti-diabetes Drug Candidates**  
Tony Sumaryada (Bogor Agricultural University & Tropical Biopharmaca Research Center, Bogor, Indonesia); Agus Kartono (Bogor Agricultural University (IPB), Indonesia)