

## Program

### Pre-Congress: Workshop (10 December 2015)

VENUE		Convention Hall Level II(A)	Convention Hall Level II(B)
Start	End		
07.30	16.00	Registration	
08.30	08.40	Workshop introduction <b>Kwan-Hoong Ng</b>	Workshop on education program to medical physicists on nuclear power disaster and risk communication <b>Rethy Chemm</b>
08.40	09.10	Concepts of digital imaging <b>Chai-Hong Yeong</b>	
09.10	09.40	Computed and digital radiography <b>Napapong Pongnapang</b>	
09.40	10.10	Exposure Index and Patient Dose <b>Kwan-Hoong Ng</b>	
10.10	10.25	Coffee break/Poster Display Viewing/Exhibition	
10.25	10.55	Image quality and the factors affecting it <b>Chai-Hong Yeong</b>	Workshop on education program to medical physicists on nuclear power disaster and risk communication <b>Kwan-Hoong Ng</b>
10.55	12.15	Physics testing – CR <b>Napapong Pongnapang, Chai-Hong Yeong</b>	Q&A
12.15	13.00	Lunch/ Poster Display Viewing/Exhibition	
13.00	13.15	Medical image engineering approaches for computer-aided diagnosis and radiotherapy <b>Hidetaka Arimura</b>	Welcome – introduction – clinical need for fetal dose estimation <b>Donald McLean</b>
13.15	13.40		Gestational development and associated risk to radiation <b>Kwan-Hoong Ng</b>
13.40	14.00		Fetal dose estimation – plain radiography and fluoroscopy <b>Napapong Pongnapang</b>
14.00	14.30		Fetal dose estimation – principles for nuclear medicine <b>Anchali Krisanachinda</b>
14.30	15.00		Fetal dose estimation – CT <b>Donald McLean</b>
15.00	15.30	Coffee break/Poster Display Viewing/Exhibition	
15.30	17.10	Medical image engineering approaches for computer-aided diagnosis and radiotherapy <b>Hidetaka Arimura</b>	Practical scenario based tutorial for both diagnostic radiology and nuclear medicine <b>Donald McLean, Anchali Krisanachinda, Kwan-Hoong Ng</b>
17.10	17.30	Summary and Close	Summary and Close

**Congress Day-1 (11 December 2015)**

Start	End	Activities		
07.30	11.00	Registration		
<b>VENUE</b>		<b>Convention Hall Level I</b>		
08.00	08.10	Opening Ceremony and Safety Induction		
08.10	08.20	Welcome speech from President of SEACOMP		
08.20	08.30	Welcome speech from Dean of Faculty of Mathematics and Natural Science ITB		
08.30	08.40	Welcome speech from Rector of UIN Sunan Kalijaga		
<b>VENUE</b>		<b>Convention Hall Level I</b>		
		Section Chairperson: - Suprianto Ardjo Pawiro - Kwan-Hoong Ng		
08.40	09.25	L-01 <i>John Cameron Memorial Lecture:</i> Potential Impact of Computer-Aided Diagnosis in Medical Imaging <b>K. Doi</b>		
09.25	09.55	Coffee break/Poster Display Viewing/Exhibition		
09.55	10.40	L-02: Cell and Molecular Biology for Diagnostic and Therapeutic Technology <b>Marcelina Irasonia Tan</b>		
10.40	11.25	L-03: Global Radiation Emergency: Physicians/Medical Physicists as Narrative Mediator <b>Rethy Chemm</b>		
11.25	13.00	Lunch/Poster Display Viewing/Exhibition		
<b>VENUE</b>		<b>Convention Hall Level I</b>	<b>Convention Hall Level II(A)</b>	<b>Convention Hall Level II(B)</b>
		Section Chairperson: - Suprianto Ardjo Pawiro - James Choi Lee	Section Chairperson: - Wahyu Setia Budi - Agnette de Perio Peralta	Section Chairperson: - Anchali Krisnachinda - Sparisoma Viridi
13.00	15.00	Scientific Section 1.1 Therapeutics (ORT-01 – 12)	Scientific Section 1.2 Diagnostics (ORD-01 – 12)	Scientific Section 1.3 Biomedical Engineering (OBM-01 – 09)
15.00	15.30	Coffee break/Poster Display Viewing/Exhibition		
15.30	15.50	L-04 An update on Physics, Dosimetry, Quality & Clinical Applications of Gamma Knife Radiosurgery <b>Sajeev Thomas</b>	L-05 Low Cost Digital Radiography System for Medical Diagnostic in Indonesia <b>Gede Bayu Suparta</b>	Scientific Section 1.6 Nuclear Medicine (ONM-01 – 08)
15.50	17.10	Scientific Section 1.4 Therapeutics (ORT-13 – 20)	Scientific Section 1.5 Diagnostics (ORD-13 – 20)	
<b>VENUE</b>		<b>Royal Ambarukkmo Hotel</b>		
18.30	21.00	Gala dinner		

**Congress Day-2 (12 December 2015)**

Start	End	Activities	
07:30	10:00	Registration	
<b>VENUE</b>		<b>Convention Hall Level I</b>	
		Section Chairperson: - Sparisoma Viridi - James Cheow Lei Lee	
08:00	08:45	L-06 : Boosting of Radiation Therapy using High Dimensional Image Analysis <b>Hidetaka Arimura</b>	
08:45	09:30	L-07: Future-Proofing Next the Generation of Medical Physics <b>Kwan-Hoong Ng</b>	
09:30	10:00	Coffee break/Poster Display Viewing/Exhibition	
<b>VENUE</b>		<b>Convention Hall Level I</b>	<b>Theatrical Room</b>
		Section Chairperson: - Djarwani S. Soejoko - Chai-Hong Yeong	Section Chairperson: - Triati Dewi Kencana Wungu - Anis Yuniati
10:00	10:20	L-08: The Challenge of Managing Dose during Radiotherapy of Lung Cancer <b>Supriyanto Ardjo Pawiro</b>	L-09: Molecular Dynamics Simulation of Microorganism Motion in Fluid Based on Granular Model in the Case of Multiple Simple Push-Pull Filaments <b>Sparisoma Viridi</b>
10:20	12:00	Scientific Section 2.1 Therapeutics (ORT-21 – 30)	Scientific Section 2.2 Biophysics (OBP-01 – 05)
12:00	13:00	Lunch/ Poster Display Viewing/Exhibition	
<b>VENUE</b>		<b>Convention Hall Level I</b>	
		Section Chairperson: - Sparisoma Viridi - James Cheow Lei Lee	
13:00	13:45	L-10: Clinical Training of Medical Physicists in Asia: RCA/IAEA Regional Projects <b>Donald McLean</b>	
<b>VENUE</b>		<b>Convention Hall Level I</b>	<b>Theatrical Room</b>
		Section Chairperson: - Djarwani S. Soejoko - Napapong Pongnapang	Section Chairperson: - Triati Dewi Kencana Wungu - Anis Yuniati
13:50	15:00	Scientific Section 2.3 Therapeutics and Diagnostics (ORT-31 – 34 and ORD-21 – 23)	Scientific Section 2.4 Biophysics (OBP-06 – 12)
<b>VENUE</b>		<b>Convention Hall Level I</b>	
15:00	15:20	Coffee break/Poster Display Viewing/Exhibition	
<b>VENUE</b>		<b>Convention Hall Level I</b>	
15:20	15:40	Fluke Biomedical Presentation	
15:40	16:00	PT. Indosopha Sakti/PTW-Asia Pte Ltd Presentation	
16:00	17:00	Awards and Closing Ceremony	

## Oral Presentation Index

<b>Time</b>	<b>Scientific Section 1.1 – Therapeutics (Friday, 11 Dec 2015)</b>	<b>Index</b>
13:00 – 13:10	<b>Calculation of Radiation Shielding for Megavoltage Gamma Ray Facility using Monte Carlo Code EGSnrc</b> Nguyen Thi Cam Tu	ORT-01
13:10 – 13:20	<b>Dose Verification Based on Monte Carlo Method and Analytical Anisotropic Algorithm (AAA) in the Case of Esophageal Cancer using Arccheck Phantom</b> Ridwan Ramdani	ORT-02
13:20 – 13:30	<b>Monte Carlo Dosimetric Study on Various Hip Prosthesis Materials</b> Mohd Zahri	ORT-03
13:30 – 13:40	<b>Dosimetric Investigation of Proton Therapy on CT-based Patient Data using Monte Carlo Simulation</b> Thanaphat Chongsan	ORT-04
13:40 – 13:50	<b>Investigation of Optimum Parameter for Photon Radiotherapy Monte Carlo Dose Calculation Method in GPU and Cluster MPI Computation Environment</b> Yakub Aqib Bayhaqi	ORT-05
13:50 – 14:00	<b>Preliminary Experience on the Implementation of Computed Tomography (CT)-based Image Guided Brachytherapy (IGBT) of Cervical Cancer using High-Dose-Rate (HDR) Cobalt-60 Source in University Malaya Medical Center (UMMC), Malaysia</b> Zulaikha Jamalludin	ORT-06
14:00 – 14:10	<b>Determination of Small Field Output Factors in 6 and 10 MV Flattening Filter Free Photon Beams using Various Detectors</b> Wilai Masa-nga	ORT-07
14:10 – 14:20	<b>Development of EPID-based Quality Assurance Procedures for Dynamic WaveArc Irradiation</b> Hideaki Hirashima	ORT-08
14:20 – 14:30	<b>Technical and Procedural Interventions: Can it Improve The Post-implant D<sub>90</sub> for LDR Prostate Brachytherapy?</b> Edgar Bacani Estoesta	ORT-09
14:30 – 14:40	<b>Does an Effective Point of Measurement Correction Shift of Semiflex 0.0125 cm<sup>3</sup> Ion Chamber Applied to 6 MV and 10 MV Photons Depth Dose Curves in AAA Beam Model Affect the Passing Rate of IMRT/VMAT Patient Specific Quality Assurance Measured by ArcCheck?</b> Mohamad Fahdillah Rhani	ORT-10
14:40 – 14:50	<b>The Systematic and Random Errors Determination using Real-Time 3D Surface Tracking System in Breast Cancer</b> Jaruek Kanphet	ORT-11
14:50 – 15:00	<b>Comparison of Whole Brain External Radiation Therapy (WBRT) with and without using The Multileaf Collimator (MLC), Calculation with Computer Treatment Planning System</b> Tris Budiyo	ORT-12

<b>Time</b>	<b>Scientific Section 1.2 – Diagnostics (Friday, 11 Dec 2015)</b>	<b>Index</b>
13:00 – 13:10	<b>Characteristics of Computed Radiography Systems with Cranium, Thorax, and Pelvic Applications</b> Ika Bayuadi	ORD-01
13:10 – 13:20	<b>Establishment of Multi-slice Computed Tomography (MSCT) Reference Level in Johor, Malaysia</b> Muhammad Khalis Abdul Karim	ORD-02
13:20 – 13:30	<b>Percentage Difference of Target Volume Delineation by Using CT and CT-MRI Fusion Data Sets in Brain Gliomas</b> Muhammad Aqeel Hussain	ORD-03
13:30 – 13:40	<b>Parameter-Based Estimation of CT Dose Index and Image Quality Using In-House Android™-Based Software</b> Sayid Mubarok	ORD-04

13:40 – 13:50	<b>Impact of a Novel Enhancement Filter for Various Ellipsoid Convex Shapes on CAD Frameworks of Asymptomatic Unruptured Intracranial Aneurysms</b> Ze Jin	ORD-05
13:50 – 14:00	<b>A Phantom Study on Radiation Dose Reduction in Thoracic and Abdomen-pelvic CT Examinations using Tube Current Modulation</b> Akmal Sabarudin	ORD-06
14:00 – 14:10	<b>Computer-aided Classification of Alzheimer's Disease Based on Support Vector Machine with Combination of Cerebral Image Features in MRI</b> Chonnikan Jongkreangkrai	ORD-07
14:10 – 14:20	<b>Patient Radiation Dose from Computed Tomography Angiography and Digital Subtraction Angiography of The Brain</b> Yutthana Netwong	ORD-08
14:20 – 14:30	<b>Effect of Filters on Average Glandular Dose and in Digital Mammography</b> Chatsuda Songsaeng	ORD-09
14.30 – 14.40	<b>Establishing Daily Quality Control (QC) in Screen-Film Mammography using Leeds Tor (MAX) Phantom at The Breast Imaging Unit of USTH Benavides Cancer Institute</b> Karl Joy Acaba	ORD-10
14.40 – 14.50	<b>Assessment of Patient's Eye Lens Dose using a Custom Made Anthropomorphic Head Phantom</b> Mohammad Javad Safari	ORD-11
14.50 – 15.00	<b>AAPM CT Performance Phantom as CT Image Quality Phantom for use in the Philippines: A Feasibility Study</b> Marlon Raul Z. Tecson	ORD-12

<b>Time</b>	<b>Scientific Section 1.3 – Biomedical Engineering (Friday, 11 Dec 2015)</b>	<b>Index</b>
13:10 – 13:20	<b>Design and Mechanical Testing of A New Expandable Orthopedic Fastener</b> Intan Oldakowska	OBM-01
13:20 – 13:30	<b>The Design of A Prototype of Two Dimensional Gamma-Rays Computed Tomography (CT) System</b> Akhmad Musthafa Kamal	OBM-02
13:30 – 13:40	<b>Integration of Soft Tissue Model and Open Haptic Device for Medical Training Simulator</b> Gina Fauziah Akasum	OBM-03
13:40 – 13:50	<b>Dental Panoramic Image Analysis for Enhancement Biomarker of mandibular condyle for Osteoporosis Early Detection</b> Suprijanto	OBM-04
13:50 – 14:00	<b>Spreadsheet-based Prediction of CT Number for Inhomogeneous Object as An Educational Tool</b> Muhammad Shahrin Nizam B.A Daman Huri	OBM-05
14:00 – 14:10	<b>Model-based Assesment of Probe Placement Criteria in Cancer Therapy Using RF Ablation</b> Evan Wijaya Tanotogono	OBM-06
14:10 – 14:20	<b>Brain Activation Within and Psychophysiological Interaction between Superior Temporal Gyrus (STG) and Cerebellum during Simple Addition Task in Quiet and in Noise: An fMRI Study</b> Ahmad Nazlim Yusoff	OBM-07
14:20 – 14:30	<b>Spectral and Brain Mapping Analysis of EEG Based on Pwelch in Schizophhrenic Patients</b> Yudiansyah Akbar	OBM-08
14:30 – 14:40	<b>The Two Dimensions Finite Element Method Simulation to Determine The Brain Capacitance Based on ECVT Measurements</b> Syarif Hussein Sirait	OBM-09

<b>Time</b>	<b>Scientific Section 1.4 – Therapeutics (Friday, 11 Dec 2015)</b>	<b>Index</b>
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16:00 – 16:10	<b>Applied Research in Technique of Intensity Modulated Radiation Therapy (JO-IMRT) in Dongnai General Hospital</b> Tai Duong Thanh	ORT-14
16:10 – 16:20	<b>Dosimetric Impact of Interplay Effect In Lung IMRT and VMAT Treatment Using in-House Dynamic Thorax Phantom</b> Mukhlisin	ORT-15
16:20 – 16:30	<b>Implementation of In-House Dose Verification Program for IMRT and VMAT on Breast Cancer and NPC Cases</b> Akbar Azzi	ORT-16
16:30 – 16:40	<b>Determination of Effective Doses in Image Guided Radiation Therapy System</b> Yin Yin Pyone	ORT-17
16:40 – 16:50	<b>Comparison of Radiotherapy Dosimetry for 3D-CRT, IMRT, and SBRT Based on Electron Density Calibration</b> Kartutik	ORT-18
16:50 – 17:00	<b>The Influence of Dose Rates on Treatment Plans of IMRT in Prostate and Head and Neck Regions for FFF Mode</b> Taweap Sanghangthum	ORT-19
17:00 – 17:10	<b>RttxGap: An Android Radiobiological Tool for Compensation of Radiation Therapy Treatment Interruption</b> Ahmad Lutfi Yusoff	ORT-20

<b>Time</b>	<b>Scientific Section 1.5 – Diagnostics (Friday, 11 Dec 2015)</b>	<b>Index</b>
15:50 – 16:00	<b>The Relationship between Breast Volume, Breast Dense Volume and Volumetric Breast Density with Body Mass Index, Body Fat Mass, Age and Ethnicity</b> Norhasnah Zakariyah	ORD-13
16:00 – 16:10	<b>The Conduct of Performance Test for Magnetic Resonance Imaging (MRI) Equipment based on the American College of Radiology (ACR) MRI Quality Control (QC) Manual</b> Marlon Raul Z. Tecson	ORD-14
16:10 – 16:20	<b>Eye Dose to Staff Involved in Interventional and Procedural Fluoroscopy</b> Donald McLean	ORD-15
16:20 – 16:30	<b>Radiation Dose to The Physician's Eye Lens during Interventional Radiology</b> Nur Ashiqin Bahrudin	ORD-16
16:30 – 16:40	<b>Comparison of Segmentation Using Fast Marching and Geodesic Active Contours Methods for Bone</b> Ayesha Bilqis	ORD-17
16:40 – 16:50	<b>Assessment of Knowledge and Awareness among Radiology Personnel Regarding Current Computed Tomography Technology and Radiation Dose</b> Muhammad Khalis Abdul Karim	ORD-18
16:50 – 17:00	<b>A Review on Radiation Protection Solutions for the Staff in the Cardiac Catheterization Laboratory</b> Mohamed Badawy	ORD-19
17:00 – 17:10	<b>Evaluation of Detection Performance of Digital Mammography Systems using a 3D Structured Phantom: 4AFC Study and Quantitative Analysis</b> Kristina Tri Wigati	ORD-20

<b>Time</b>	<b>Scientific Section 1.6 – Nuclear Medicine (Friday, 11 Dec 2015)</b>	<b>Index</b>
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15.40 – 15:50	<b>The Correlation between Effective Renal Plasma Flow (ERPF) and Glomerular Filtration Rate (GFR) with Renal Scintigraphy <sup>99m</sup>Tc DTPA Study</b> Diana Ratnasari	ONM-02
15:50 – 16:00	<b>Organ Doses from Hepatic Radioembolization with Y-90, Sm-153, Ho-166 and Lu-177: A GEANT4 Monte Carlo Simulation Study</b> Nurul Hashikin	ONM-03
16:00 – 16:10	<b>Development of A Software Tool for An Internal Dosimetry using MIRD Method</b> Anucha Chaicana	ONM-04
16:10 – 16:20	<b>Assessment of Cardiac Function using Myocardial Perfusion Imaging Technique on SPECT with <sup>99m</sup>Tc-Sestamibi</b> M. Roslan Abdul Gani	ONM-05
16:20 – 16:30	<b>A Pharmacokinetic Model of <sup>18</sup>F-FDG for Newborn and Radiation Risk Evaluation</b> Kitiwat Khamwam	ONM-06
16:30 – 16:40	<b>Quality Control Test for SPECT Camera Detector Using IAEA and AAPM Protocols</b> Fery Ardiansyah	ONM-07
16:40 – 16:50	<b>The Standarization Methods of Radioactive Sources (I-125, I-131, Tc-99m, and F-18) for Calibrating Nuclear Medicine Equipment in Indonesia</b> Gatot Wurdianto	ONM-08

<b>Time</b>	<b>Scientific Section 2.1 – Therapeutics (Saturday, 12 Dec 2015)</b>	<b>Index</b>
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10:30 – 10:40	<b>Computer-aided Delineation of Gross Tumor Volume Regions of Lung Cancer in Treatment Planning CT with PET/CT Images Based on Fuzzy c-mean Clustering Method</b> Yasuo Kawata	ORT-22
10:40 – 10:50	<b>Institutional Study to Analyze High Doses to Trigeminal Nerve, Brainstem in Gamma Knife Radiosurgery</b> Vindhyavasini Prasad Pandey	ORT-23
10:50 – 11:00	<b>Evaluation of 3D Pre-treatment Verification for Volumetric Modulated Arc Therapy Plan in Head Region</b> Sirinya Ruangchan	ORT-24
11:00 – 11:10	<b>Validation of In-house Treatment Planning System (TPS) Software for Cobalt-60 Teletherapy Unit at Two Radiotherapy Installations</b> Intan Mu'minah	ORT-25
11:10 – 11:20	<b>The Optimum Number and the Position of Seed Determination in Breast Cancer Brachytherapy using I-125 6702</b> Nurul Atiqah	ORT-26
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11:30 – 11:40	<b>Determination of Correction Factor Monitor Unit of Electron Beam on Variation Applicator and Variation Block on Linear Accelerator</b> Darmawati	ORT-28
11:40 – 11:50	<b>Verification of Dynamic Multileaf Collimator Based Radiotherapy Treatment Delivery using Log Files</b> Nur Shaheera Midi	ORT-29
11:50 – 12:00	<b>Dosimetric Parameters of the Flexisource <sup>60</sup>Co and <sup>103</sup>Pd Brachytherapy Unit Based on Monte Carlo Study</b> Md. Abdullah-Al-Mashud	ORT-30

<b>Time</b>	<b>Scientific Section 2.2 – Biophysics (Saturday, 12 Dec 2015)</b>	<b>Index</b>
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10:30 – 10:40	<b>Analysis of Respirable Particulate Exposure and Its Effect to Public Health around Non Formal Lead Smelter Industry</b> Mariana Marselina	OBP-02
10:40 – 10:50	<b>Identification, Distribution, and Level of Organochlorine Insecticide Contamination in Groundwater and Hazard Estimation for People Health in DAS Citarum Hulu</b> Katharina Oginawati	OBP-03
10:50 – 11:00	<b>Preliminary Research of Calcium-Montmorillonite for Health Application: A Density Functional Theory Study</b> Triati Dewi Kencana Wungu	OBP-04
11:00 – 11:10	<b>Facile Synthesis of PEGylated Gadolinium Oxide Nanoparticles for MRI Contrast Agent</b> Atika S. Ahab	OBP-05

<b>Time</b>	<b>Scientific Section 2.3 – Therapeutics and Diagnostics (Saturday, 12 Dec 2015)</b>	<b>Index</b>
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14:00 – 14:10	<b>Point and Composite Dose Measurement of IMRT and VMAT to Evaluate Treatment Planning and Delivery Accuracy using AAPM TG 119 Protocol</b> Andreas Nainggolan	ORT-32
14:10 – 14:20	<b>Dosimetric Characterization of Respiratory-gated Lung Stereotactic Body Radiotherapy: A Phantom Study</b> Wei Loong Jong	ORT-33
14:20 – 14:30	<b>The Dose Delivery Effect of The Different BeamON Interval in FFF SBRT: TrueBEAM</b> Tanawat Tawonwong	ORT-34
14:30 – 14:40	<b>A Fully Automated Calculation of Size-Specific Dose Estimates (SSDE) in Thoracic and Head CT Examinations Performed With Tube Current Modulation (TCM)</b> Choirul Anam	ORD-21
14:40 – 14:50	<b>Using Computer-aided system to determine the Maximum Depth of Visualization of B-Mode Diagnostic Ultrasound Image</b> Giner Maslebu	ORD-22
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<b>Time</b>	<b>Scientific Section 2.4 – Biophysics (Saturday, 12 Dec 2015)</b>	<b>Index</b>
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14:00 – 14:10	<b>Design and Fabrications of Surface Plasmon Resonance (SPR) on Tapered Fiber Structure for Optical Sensor Applications</b> Nina Siti Aminah	OBP-07
14:10 – 14:20	<b>Study of Budding Yeast Colony Formation and Its Characterization by Using Circular Granular Cell</b> Devi Aprianti Rimadhani Agustini	OBP-08
14:20 – 14:30	<b>Kinematic Analysis of Human Gait for Typical Postures of Walking, Running and Cart Pulling</b> Nupur Karmaker	OBP-09

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14:30 – 14:40	<b>Nonlinear Dynamics of Specific DNA-Protein Interactions</b> Donny Dwiputra	OBP-10
14:40 – 14:50	<b>Analysis of Solvent Effect on DNA Dynamic by using Modified Helicoidal Peyrard-Bishop Model</b> Wahyu Hidayat	OBP-11
14:50 – 15.00	<b>Modeling in Supra Electroporation for Model Cell with Organelles using COMSOL Multiphysics</b> Muhammad Yangki Sulaeman	OBP-12

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## Poster Presentation Index

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