

**IRC 2018 Schedule**

9am Start	<b>Wednesday 5<sup>th</sup> September</b>			
TIME	<b>Conference Room 1 (CF1): Filled Vulcanizate Chairperson: Kok Chong YONG</b>	<b>Conference Room 2 (CF2): Rubber Engineering I Chairperson: Jacques W NOORDERMEER</b>	<b>Conference Room 3 (CF3): Test Method and Standards Development I Chairperson: Faridah Hanim ABDUL</b>	<b>Room 302-303 (RM4): Rubber Sustainability I Chairperson: Azemi SAMSURI</b>
<b>0900-0920</b>	Invited Speaker Kyungho CHUNG A06: The Dual-Function of ZnO in Magneto-Rheological Elastomer Based on Ethylene/Acrylic Elastomer (AEM) and Its Magneto-Induced Properties	Invited Speaker Liqun ZHANG B40: Ideal Microstructure for Super Tyre Performance: From Design to Performance	Invited Speaker Pinprayoon ORAWAN C07: Migration of N-nitrosamines from Rubber Gloves for Handling Food: Effect of Extraction Media	Invited Speaker Devaraj VEERASAMY E07: Sustainable Rubber Industry with Eco-Friendly Processing
<b>0920-0940</b>	Gon SEO A18: Preparation of Networked Silica-Filled SBR/BR Compounds with Improved Wet Traction and Rolling Resistance by Wet Masterbatch	Barnabas SHAW B21: Understanding the Cyclic Fatigue Behaviour of Filled HNBR Elastomers	Invited Speaker Victor CHAN C19: Feasibility Assessment on Condom Foil Opening Device (AONI Box)	Invited Speaker Susanna LIEBER A11: Hydrogenated Nitrile Rubber (Therban <sup>®</sup> ) with Improved Oil Resistance and Low Temperature Flexibility
<b>0940-1000</b>	Nerissa Unielle QUENGA A27: Thermal and Viscoelastic Properties of Recycled Rubber-Derived Carbon (CRR) and Geothermal Brine-Derived Silica Fillers in Rubber Compounds	Keizo AKUTAGAWA B25: Nanomechanics on Non-Equilibrium Thermodynamics of Rubber-Like Materials	Hui Mei LIM C01: Integrating Theory of Copper Chelation, Latex Preservation and Oxidation in Natural Rubber Latex	Invited Speaker Wataru SAKAI E13: Spin-Trapping Analysis of Thermal Degradation Mechanism of Thermoplastic Polyester Elastomer
<b>1000-1020</b>	Luciano TADIELLO A55: Shape-Controlled New Nanofillers for Tyre Industry: Reinventing Rubber Compounds Properties with SmartNet Silica	Muhammad FAROOQ B29: Some Factors Affecting the Flex Life of Polybutadiene Rubber Vulcanisates	Yasuyuki HIRAKAWA C02: Trial Evaluation of Vulcanisation Depth of Thick Rubber Products by Terahertz Radiation	Abu Hassan AZIANA E05: Assessing Biodegradability of Epoxidised Natural Rubber Latex Films
<b>1020-1040</b>		Sanjoy DATTA B33: Study of Relationship between Fracture Energy and Redistribution of Processing Oil at Fracture Surface of Rubber	Sharatol Ahmad Shah FARINIE C12: Standards Development at ISO/TC 45 Towards United Nation's Sustainable Development Goals	Suganti RAMARAD E03: Recycling Waste Tyres: Effect of Radiation Sensitisers and Electron Beam Irradiation of Properties of Reclaimed Waste Tyre Rubber

**IRC 2018 Schedule**

1040-1100	<b>Wednesday 5th September - AM TEA BREAK</b>			
TIME	<b>Conference Room 1 (CF1): Materials Science I Chairperson: Nurul Hayati YUSOF</b>	<b>Conference Room 2 (CF2): Rubber Application/Rubber Processing Chairperson: Tan Teng OR</b>	<b>Conference Room 3 (CF3): Test Method and Standards Development II Chairperson: Norlee RAMLI</b>	<b>Room 302--303 (RM4): Rubber Sustainability II Chairperson: Manroshan SINGH</b>
1100-1120	Invited Speaker Anil K. BHOWMICK A36: Novel Forms of Carbon as Performance Enhancers for Rubber Vulcanisates	Invited Speaker Cornelis VAN DER AAR B22: Innovative EPDM Compounding for Optimal Ultimate Properties	Invited Speaker Jorge LACAYO PINEDA C10: Innovative Kinetic Approaches in Rubber Technology	Invited Speaker Sau Soon CHEN E06: Climate Actions for the Rubber Industry
1120-1140	Invited Speaker Siby VARGHESE A48: Response Surface Methodology: A Tool for Assessing the Role of Compounding Ingredients in Peroxide Vulcanisation of Natural Rubber		Invited Speaker Pasaree LAOKIJCHAROEN C17: Development of Rubber Product Standards in Thailand	Invited Speaker Rabindra MUKHOPADHYAY E09: Green Mobility, Challenges and Opportunities for Automotives, Tyres and Related Industry
1140-1200	Mehdi RAZZAGHI-KASHANI A39: Physical Effects of Reinforcing Fillers on the Kinetics of Rubber Vulcanisation	Mustafa Kamal MAZLINA B24: Natural Rubber Modified Asphalt for Road Application	Amran Mohamad Khairul AKMAL C04: Flexure Testing Machine for Automotive Air Brake Hose and Hose Assemblies	Invited Speaker Naesinee CHAIEAR E12: Natural Rubber Latex Allergy: Cause, Control and Prevention
1200-1220	Akansha RATHI A54: Effect of Aromatic Oil on the sSBR/BR Blend Components Revealed Using BDS and PALS	Yasuhiro KAMEDA B31: New Kneading Advanced Mixing Rotor	Rizuan Mohd Ismail RIFDI C06: Equipment Development for Supporting Establishment of <i>ISO 3821</i> towards Certification of Welding Hoses	Hans VAN HOEK E01: Challenges for Reuse of Passenger Car Tyres for a Circular Economy
1220-1240	Murat SEN A45: The Effect of Ionising Radiation on the Mechanical Properties of NBR Elastomers Reinforced By Lignin	Daniel SCHMIDT B46: Influence of Different Temperature Control Unit (TCU) Settings on Thermal Melt Homogeneity and Throughput in Rubber Extrusion Processes	Christopher ROBERTSON C16: Applying the Cutting Method to Quickly Quantify Elastomer Durability in the Laboratory for Compound Development and Quality Control	Paul SPEED E14: Sustainable Rubber through the Lens of Institutional Investors

**IRC 2018 Schedule**

1240-1340	<b>Wednesday 5th September - LUNCH BREAK</b>			
TIME	Conference Room 1 (CF1): <b>Materials Science in Rubber Blend</b> Chairperson: Anil BHOWMICK	Conference Room 2 (CF2): <b>Rubber Application II</b> Chairperson: Thi Hao PHAM	Conference Room 3 (CF3): <b>Specification and Quality Control</b> Chairperson: Mohamad Asri AHMAD	Room 302-303 (RM4): <b>Sustainability III</b> Chairperson: Rabindra MUKHOPADHYAY
1340-1400	Invited Speaker Ulrich GIESE A09: Thermal Oxidative Ageing in Single and Two Phase Elastomer Systems - Kinetics and Spatial Evolution	Aik Hwee ENG B39: Advantages of Manufacturing and Using Natural Rubber Gloves	Invited Speaker Azemi SAMSURI C20: Technical Advisory Service (TAS)	Invited Speaker Mahendra ANGGARAVIDYA E10: The Potential of Natural Rubber Resources in Indonesia to Meet the Needs of World Rubber Products
1400-1420	Gustavo Ariel SCHWARTZ A04: Nano-Mechanical Structural Characterisation of Immiscible SBR/NR Blends	Invited Speaker Ranjit MATTHAN B41: Development and Evaluation of Non-Enzymatic (NE) Deproteinised Latex and Dry Natural Rubber Grades for Downstream Product Applications	Mohamed Resali Nur SALWANIE C14: Recent Developments in Data Analysis: Proficiency Testing (PT) Programme of Rubber and Rubber Products	Cristina BERGMANN E02: Influence of Process Oils Based on Renewable Sources on Key Properties of Tyre Treads
1420-1440	Yuki TAKAHASHI A17: Study of Butadiene Rubber/Resin Composite by Using Nano-Palpation AFM	Sitisaiyidah SAIWARI B02: Thermoplastic Vulcanisates Based on Recycled Rubber from Waste of Natural Rubber Gloves and Polypropylene Blends: Effect of Maleic Anhydride as Compatibiliser	Dhavalkumar Narendrabhai PATEL C15: Novel Tools to Meet Analytical Challenges of Polymer Characterisation	Wencai WANG E08: A Novel Continuous and Green Technique for the Desulphurisation of Waste Tyre Rubber Using Multistage Screw Extruder: From Basic Research to Industrial Application
1440-1500	Naoki YAJIMA A24: Evaluation of Impact Absorbing Properties of Thermoplastic Elastomers	Abu Bakar ROHANI B23: Development of Wallpaper Adhesive from Specialty Natural Rubber Latex	Mohd Yusop MOHAMAD C21: Automotive Rubber Products: Related Regulations and Opportunity under WP29 Framework	Invited Speaker Choo Hin OON E15: Rubber Additives with RoHS Compliances Meeting Global Safety Standards
1500-1520	Mehmet KODAL A41: Mechanical, Rheological and Morphological Properties of NR/M-POSS Compounds	Siti Maizatul Farhain SALEHUDDIN B30: Burning Rate and Characterisation of Hydroxyl Terminated Natural Rubber/ Isophorone Diisocyanate/Glycerol Propellant Composites		Invited Speaker Salvatore PINIZZOTTO E16: Sustainability and Growth In A Fast Changing Rubber Economy

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<b>Wednesday 5th September - PM TEA BREAK</b>				
<b>1520-1540</b>				
<b>TIME</b>	<b>Conference Room 1 (CF1): Material Science in Natural Rubber Chairperson: Siby VARGHESE</b>	<b>Conference Room 2 (CF2): Rubber Products I Chairperson: Ranjit MATTHAN</b>	<b>Conference Room 3 (CF3): Test Method and Quality Control Chairperson: Syuhaizat MD ALI</b>	<b>Room 302-303 (RM4): Rubber Techno-Economics &amp; Marketing Chairperson: Chai Seng ANG</b>
<b>1540-1600</b>	Invited Speaker Jitladda SAKDAPIPANICH A35: An Origin of the Outstanding Properties in Natural Rubber: Structural Characterisation of Natural Rubber Relating to Gel and Storage-Hardening Phenomena	Tao HAN B01: New NORDEL EPDMs Enabled by Advanced Molecular Catalyst (AMC)	Invited Speaker Rose Marie SALAZAR C05: Baseline Study on the Quality of Rubber Crumbs in Southern Philippines: The Role of Testing Laboratory in the Rubber Industry	Invited Speaker Kai See PONG D04: The New Rubber Economy: Expect the Unexpected
<b>1600-1620</b>	Abdullah NURULHUDA A30: Urea as a Single Denaturing Agent in Deproteinised Natural Rubber Latex	Kok Chong YONG B03: Antistatic Footwear Based on Epoxidised Natural Rubber: Optimisation of Formulation	Invited Speaker Haslina ABDUL KADIR C08: The Production and Certification of Reference Materials	
<b>1620-1640</b>	Sirirat KUMARN A37: Ammonia-Preserved Latex Stability Mechanism to Reveal a New <i>Hevea</i> Rubber Particle Microstructure Model	Chesidi HAYICHELAEH B04: Silanisation Efficiency of Silica/Silane in Dependence of Amines in Natural Rubber Based Tyre Compounds	Eshwaran Subramani BHAGAVATHESWARAN C03: Comparative Investigation of the Influence of Material Formulation on the Ageing Behavior of FKM, VMQ, EPDM and HNBR Elastomers for Sealing Applications	Invited Speaker Dar WONG D02: Global Economic Influences on Rubber Prices
<b>1640-1700</b>	Siang Yin LEE A49: Novel Biocompatible Natural Rubber Latex Film Incorporated with Vegetable Oil Nanoemulsion as Plasticiser	Ibrahim NORAZURA B05: Application of Arrhenius Equation and Thermocouple Measurements in Predicting Curing Behaviour of Large Rubber Component	Kamaruddin Ahmad NAZIR C13: ISO/IEC 17025 Tyre Testing Laboratory for Mechanical (Tyre) Testing	Invited Speaker Choo Hin OON D07: Effect on Rubber Demand of New Technologies Particularly in Transport Related Industries
<b>1700-1720</b>		Jan KRUZELAK B06: Rubber Magnetic Composites with the Effect of Electromagnetic Radiation Shielding		
<b>530pm End</b>				

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9am Start	<b>Thursday 6<sup>th</sup> September</b>			
TIME	<b>Conference Room 1 (CF1): Applications in Tyre Chairperson: Alan MUHR</b>	<b>Conference Room 2 (CF2): Rubber Engineering II Chairperson: James BUSSFIELD</b>	<b>Conference Room 3 (CF3): Modern Natural Rubber Processing Technology Chairperson: Siti Salina SARKAWI</b>	<b>Room 302-303 (RM4): Novelty in Rubber I Chairperson: Wataru SAKAI</b>
<b>0900-0920</b>	Invited Speaker Kannika SAHAKARO B10: Enhancing Filler-Rubber Compatibility of Silica Reinforced Tyre Tread Compounds Using Chemically Modified Natural Rubbers	Invited Speaker Alan TAN B42: Fatigue Analysis of Rubber Bushing under Multi-Block Duty Cycle	Invited Speaker Seiichi KAWAHARA A51: Mechanical Properties of Natural Rubber with Nanomatrix Structure	Invited Speaker Changwoon NAH A20: 4, 4'- <i>Bis</i> (maleimidio)diphenylmethane: A Versatile Material for Enhancing Various Properties of Halogenated Isobutylene-Isoprene Rubbers
<b>0920-0940</b>	Abd. Rahim ROHAIDAH B11: Green Retreaded Tyres for Logistic Applications	Chenxi BAI B13: Research on Complete Sets of Industrialised Key Technologies of Synthetic Nature Rubber Chain	Benjamin ZIRNSTEIN A10: Leaving Traditional Routes for Flame Retarded Rubbers: Exploring New Pathways	Shibulal GOPI SATHI A40: A Novel Anti-Reversion Agent for the High Temperature Vulcanisation of Unsaturated Elastomers with Accelerated Sulphur
<b>0940-1000</b>	Suppachai SATTAYANURAK B19: Synergistic Effect by High Specific Surface Area Carbon Black as Secondary Filler in Silica Reinforced Natural Rubber Tyre Tread Compounds	Kamaruddin SHAMSUL B34: Effect of Specialty Natural Rubbers for Engine Mount Application	Yuzhu XIONG A21: Study on the Surface Modification of Aramid Fibre and Properties of Modified Aramid Fibre Reinforced Natural Rubber Composites	Raa Khimi SHUIB A42: Self-Healing Natural Rubber: IT'S REAL AND IT'S COMING SOON
<b>1000-1020</b>	Bartlomiej JANOWSKI B44: Novel Functionalised Solution Styrene Butadiene Rubber for Winter Tyres Tread	Haibo YANG B35: Numerical Simulation of Flow of Rubber Compounds in Partially Filled Internal Mixer	Abd Rahim ABDUL HASIF A23: Natural Rubber (NR) Gloves Reinforced with Cellulose Nanocrystals: Preparations and Physio-Mechanical Characterisation	
<b>1020-1040</b>		Mohd Khairulniza MANSOR B36: Rubberised Roads: Constructions and Benefits		

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1040-1100	<b>Thursday 6th September - AM TEA BREAK</b>			
TIME	Conference Room 1 (CF1): <b>Biotechnology &amp; New Polymer Synthesis</b> Chairperson: <b>Seiichi KAWAHARA</b>	Conference Room 2 (CF2): <b>Rubber Engineering III</b> Chairperson: <b>Toshio NISHI</b>	Conference Room 3 (CF3): <b>Rubber Marketing</b> Chairperson: <b>Sum Teck LIM</b>	Room 302-303 (RM4): <b>Novelty in Rubber II</b> Chairperson: <b>Hamid AHMADI</b>
1100-1120	Chaendaekattu NARAYANAN A34: Variation, Heritability and Genetic Correlation of Growth and Wood Traits in Para Rubber Tree ( <i>Hevea brasiliensis</i> ) and Implications for Breeding	Invited Speaker James BUSFIELD B20: A New Constitutive Model for Carbon Black Reinforced Rubber in Medium Dynamic Strains and Medium Strain Rates Based on Fractional Derivatives	Invited Speaker Motoko KAWANO D06: Development Potential of Rubber Industry in Southeast Asia: Learning from Malaysia and Thailand	Invited Speaker Krisda SUCHIVA A53: Progress in Development of Electron Beam Vulcanised Natural Rubber Latex
1120-1140	Quanquan DAI A12: Synthesis of Polybutadiene with Controllable Microstructure Using a Rare Earth Organic Sulfonates Catalyst System	Yuki KIMURA B14: Study on Voxel Finite Element Analysis of Open Cell Polyurethane Foam	Siu Ming LEE D01: Malaysia Rubber Gloves Export: The Role of Free Trade Agreements	Ramli ROSLIM A29: Natural Rubber Latex Slow-Recovery Foam for Shoe Insoles
1140-1200	Zhanbin FENG A38: A Robust, Self-Healable and Shape Memory Double Network Hydrogels	Hayato ONODERA B15: Thermodynamic Modeling for Compressible Hyperelasticity to the Microcellular Urethane	Aye Aye KHIN D05: Challenges with Export Rubber Latex Products in the ASEAN Market	Preeyanuch JUNKONG A43: Study on Guayule and Dandelion Natural Rubbers for Sustainability
1200-1220	Afiina RUMIANTSEVA A57: Application of Different Lewis Bases for Development New sSBR Grades	Hayato NAKAHARA B16: Development of Anisotropic Hyperelastic Model for Fibre Reinforced Rubbers Considering the Dispersion of Fibre Orientation Angles	Siu Ming LEE D03: An Analysis of Malaysian Companies Participation in Condom Supply to Global Fund	Shipeng WEN A44: Graphene Aerogel/Silica Hybrid Filler Reinforced SBR Nanocomposite with High Performance
1220-1240		Akihiro MATSUDA B17: 3-Dimensional Homogenisation Finite Element Analysis of Foamed Rubber		

**IRC 2018 Schedule**

1240-1340	<b>Thursday 6th September - LUNCH BREAK</b>			
TIME	Conference Room 1 (CF1): <b>Material Science in Tyre</b> Chairperson: Changwoon NAH	Conference Room 2 (CF2): <b>Rubber Engineering - Seismic</b> Chairperson: Alan TAN	Conference Room 3 (CF3): <b>Nanocomposites</b> Chairperson: Azira ABD AZIZ	Room 302-303 (RM4):
1340-1400	S. Salina SARKAWI A13: Determining Crosslink Density of Tyre Treads and In-Service Tyres <i>via</i> Swelling Measurement	Invited Speaker Toshio NISHI B08: International Ultimate Behaviour Investigation of Various Elastomeric Seismic-Protection Isolators for Buildings	Invited Speaker Siby VARGHESE A47: Transparency of Latex Products: Effect of Prevulcanisation and Compounding Ingredients	
1400-1420	Paul BROWN A25: The Development of an Improved Understanding of Tread Wear and Its Prediction	Invited Speaker Azura A. RASHID B32: Comparative Studies on the Influenced of Types of Rubber and Carbon Black on Dynamic Properties of Anti Vibration Application	Invited Speaker Wirach TAWEEPRED A50: The Effect of Field Natural Rubber Latex Pre-treatment with Cationic Exchange Resin on Latex Dipped Gloves Properties	
1420-1440	Yen Wan NGEOW A28: Wear Analysis of In-Service Tyres for Buses	Hamid AHMADI B12: Rubber Anti Seismic Systems for Protection of Structures and Non-Structural Elements	Mohd Rasdi FATIMAH RUBAIZAH A14: Alternative Microwave Coagulation and Its Effect on Raw Rubber Properties of Specialty Natural Rubber	
1440-1500	Nik Ismail NIK INTAN A32: Compounding Epoxidised Natural Rubber (ENR) Blends for Industrial Hose and Seal Applications	Farzad A. NOBARI B37: Recipe Optimisation and Characterisation of Elastomers Used as High Damping Seismic Isolation Materials	Wonho KIM A19: The Effect of Coagulant Types on Silica Dispersion of Compound Using WMB Technology	
1500-1520		Tan Teng OR B45: Application of Natural Rubber Product for Seismic Isolation of Civil Engineering Structures	Qinghong FANG A05: The Relationship between Crystallisation Behaviour and Processing Properties of Eucommia Ulmoides Gum and Natural Rubber Blend	

**IRC 2018 Schedule**

1520-1540	<b>Thursday 6th September - PM TEA BREAK</b>			
TIME	Conference Room 1 (CF1): Materials Science II Chairperson: Kyungho CHUNG	Conference Room 2 (CF2): Rubber Products II Chairperson: Krisda SUCHIVA	Conference Room 3 (CF3): Standards Development and Quality Control Chairperson: Sau Soon CHEN	Room 302-303 (RM4):
1540-1600	Invited Speaker Anke BLUME A07: Effect of Electron Beam Irradiation on Structure and Properties of Styrene-Butadiene Rubber	Invited Speaker Nobuo MUROTA B26: An Experimental Study on Performance of High Damping Rubber Bearings under Long Period Earthquake Ground Motion	Invited Speaker Henri BURHIN C11: Rubber Process Analyser (RPA): Real Achievement, Limitations and Performance Assessment	IRCO Student Prize Giving Ceremony: Student Poster Presenter Student Oral Presenter
1600-1620	Invited Speaker Masatoshi TOSAKA A16: New Concept of Strain-Induced Crystallisation in Crosslinked Natural Rubber		Mohamed Yusof YUSNIWATI C09: Gel Content Evaluation for Various Grades of Epoxidised Natural Rubber (ENR)	
1620-1640	Xiaorong WANG A33: The Principle of Frequency-Strain Separability	Che Aziz AHMAD KIFLI B07: Performance Testing of Silica Filled Ekoprena® 25 Passenger Car Tyres	Sabri Zawawi ABU HASSAN C22: SMR and Its Quality Control	
1640-1700	Chantara Thevy RATNAM A56: Influence of Irradiation on the Thermal and Morphological Properties of Ethylene Vinyl Acetate/Waste Tyre Dust Blends in the Presence of Devulcanising Agents	Abdul Ghani RASSIMI B09: Green Tyres Based on Specialty Natural Rubber for Public Transportation	Supramaniam S. SHANMUGAM C23: Industry Driven Glove Standards Development	
1700-1720				
<b>530pm End</b>				