

BUKU PROGRAM & ABSTRAK

SKSM26

SIMPOSIUM KEBANGSAAN
SAINS MATEMATIK KE 26 **2018**

*"Sains Matematik
Teras Revolusi Industri"*



Hotel TH, Kota Kinabalu, Sabah : 28-29 November 2018



UMS
UNIVERSITI MALAYSIA SABAH



MAGRAPH
Mathematics and Computer Graphics Association



ANJURAN

Fakulti Sains dan Sumber Alam, Universiti Malaysia Sabah

Persatuan Sains Matematik Malaysia

Mathematics and Computer Graphics Association

SIMPOSIUM KEBANGSAAN SAINS MATEMATIK KE-26

“Sains Matematik Teras Revolusi Industri”

28-29 November 2018

TH Hotel, Kota Kinabalu, Sabah, Malaysia

SKSM 26

2018

Organised by:



UMS
UNIVERSITI MALAYSIA SABAH



MAGRAPH
Mathematics and Computer Graphics
Association



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Isi kandungan terkini buku program boleh dimuat turun di website SKSM ke- 26

Kata Flu-Fluan



NAIB CANSELOR UMS

Assalamualaikum Warahmatullahi Wabarakatuh dan Salam sejahtera

Syukur ke hadrat Allah S.W.T kerana dengan limpah dan kurnia-Nya dipertemukan kita di Simposium Kebangsaan Sains Matematik ke-26. Syabas dan tahniah diucapkan kepada Jawatankuasa Pelaksana SKSM-26 atas usaha gigih dan dedikasi dalam memastikan kelancaran simposium ini. Setinggi penghargaan kepada pihak Persatuan Sains Matematik Malaysia (PERSAMA) kerana memberi peluang untuk Universiti Malaysia Sabah menjadi hos SKSM edisi ke-26 ini. Terima kasih diatas jemputan sebagai perasmian simposium ini.

Sesungguhnya, dengan penganjuran simposium ini para penyelidik dan cendikiawan Sains Matematik dapat berkongsi maklumat hasil penyelidikan yang terkini dalam pelbagai aspek, dan seterusnya membantu mewujudkan jaringan kerjasama dalam apa jua bidang yang berkaitan dengan Sains dan Matematik. Saya berharap agar simposium ini dapat menyediakan platform yang penting dalam pembinaan sebuah dasar yang holistik dalam membangunkan dan memperkasa pembudayaan Sains Matematik di kalangan generasi masa depan khususnya anak-anak Sabah yang merupakan nadi penggerak pemacu pembangunan mapan negeri Sabah.

Dalam kesempatan ini, saya sekali lagi mengucapkan setinggi-tinggi penghargaan dan sekalung tahniah kepada yang terlibat dalam menjayakan simposium ini sama ada secara langsung atau tidak langsung, terutamanya kepada Jawatankuasa Pelaksana Simposium Kebangsaan Sains Matematik edisi ke-26 dan rakan penganjur bersama atas sokongan dan kerjasama padu yang diberikan.

Akhir kata, semoga simposium ini dapat memberi manfaat kepada semua peserta dan pembentang.

Sekian, terima kasih.

PROFESOR DATUK DR. D KAMARUDIN D MUDIN

Naib Canselor

Universiti Malaysia Sabah

Kata Flu-Fluan



DEKAN FAKULTI SAINS DAN SUMBER ALAM

Assalamualaikum Warahmatullahi Wabarakatuh dan Salam sejahtera

Syukur ke hadrat Allah S.W.T kerana Simposium Kebangsaan Sains Matematik edisi ke-26 berjaya dianjurkan pada tahun ini.

Saya mengambil kesempatan ini untuk mengucapkan selamat datang dan terima kasih kepada semua peserta yang menghadiri simposium ini. Ucapan terima kasih kepada Persatuan Sains Matematik Malaysia (PERSAMA) kerana memberi kepercayaan kepada Fakulti Sains dan Sumber Alam, Universiti Malaysia Sabah untuk menjadi hos pelaksana SKSM edisi ke-26. Jutaan terima kasih juga kepada Persatuan Matematik dan Grafik Berkomputer (MaGRAPH), Akademi Sains Malaysia (ASM) dan seluruh rakan-rakan penaja yang turut sama menjadi rakan pengajur dalam pengajuran simposium pada kali ini. Saya juga ingin mengucapkan terima kasih kepada pengucap tama yang sudi berkongsi ilmu dan kepakaran masing-masing.

Penganjuran simposium berkaitan bidang Sains Matematik adalah penting untuk merealisasikan salah satu harapan negara untuk menjadi sebuah negara maju selari dengan Revolusi Perindustrian Ke-empat (IR 4.0). Adalah menjadi harapan saya agar simposium yang diadakan setiap tahun ini, dapat menjadi medan untuk memperkasa bidang Sains Matematik di seluruh negara. Selain itu, diharapkan juga agar hubungan di antara para penyelidik dalam pelbagai disiplin dapat dijalankan dengan lebih erat lagi. Selain menjadi medan perkongsian ilmu, saya berharap simposium ini berupaya menjadi pemangkin kepada penglibatan penyelidik dalam menjalankan penyelidikan multi-disiplin dan seterusnya menghasilkan penemuan penyelidikan yang berkualiti tinggi.

Akhir kata, sekali lagi saya mengucapkan setinggi-tinggi penghargaan kepada penaja bersama atas sumbangan yang diberikan. Sekalung penghargaan kepada AJK pelaksana yang berjaya merealisasikan simposium ini. Semoga simposium ini dapat mencapai objektifnya dan memberi manfaat kepada semua peserta.

PROFESOR DR. BABA MUSTA

Dekan

Fakulti Sains dan Sumber Alam

Universiti Malaysia Sabah



Kata Flu-Aluan

PENGERUSI SKSM-26

Assalamualaikum warahmatullahi wabarakatuh dan salam sejahtera. Setinggi puji dan syukur ke hadrat Allah Subhanahu wa taala kerana dengan izin dan limpah rahmatNya dapatlah kita sama-sama hadir ke Simposium Kebangsaan Sains Matematik (SKSM) ke-26.

Setinggi penghargaan dan terima kasih saya ucapkan kepada sekalian hadirin di atas komitmen dan kesudian menjejakkan kaki ke negeri Sabah di Bawah Bayu. Selamat bersimposium kepada penyelidik dan peserta dari seluruh pelusuk negara.

Tema SKSM edisi ke-26 kali ini adalah "Sains Matematik teras Revolusi Industri". Pemilihan ini bertepatan dengan kepentingan bidang Sains Matematik yang menjadi asas dalam kemajuan revolusi industri. Justeru, kesempatan mengadakan simposium tahunan sebegini pastinya akan menjadi wadah pertemuan dan percambahan idea di kalangan para penyelidik memperkasakan bidang Sains dan Matematik. Di antara cabaran terbesar dalam melestarikan bidang Sains dan Matematik terus utuh adalah untuk memastikan generasi anak muda di negara kita mampu menyikapi, memahami dan terbuka untuk menerima bidang ini. Adalah diharapkan agar proses membumikkan bidang Sains dan Matematik kepada masyarakat dapat diusahakan dan diperkemaskan di semua peringkat.

Sebagai hos penganjur adalah menjadi keutamaan kami untuk menyediakan hospitaliti terbaik kepada semua peserta. Pihak Ahli Jawatankuasa SKSM ke-26 memohon maaf atas segala kekurangan dalam penganjuran simposium pada kali ini. Akhir sekali, terima kasih kepada sekalian penyelidik, pembentang, pemerhati, Presiden PERSAMA, MaGRAPH, ASM dan seluruh rakan kerjasama strategik yang hadir dan menjayakan SKSM ke 26 di bumi Sabah. Selamat bersimposium.

PROFESOR MADYA DR. ABDULLAH BADE
PENGERUSI
SIMPOSIUM KEBANGSAAN SAINS MATEMATIK (SKSM) Edisi ke 26
Universiti Malaysia Sabah





TENTANG SKSM-26



Simposium Kebangsaan Sains Matematik (SKSM) merupakan program tahunan Persatuan Sains Matematik Malaysia dengan kerjasama Universiti Awam di Malaysia. Simposium ini menghimpunkan cendekiawan Sains dan Matematik dalam dan luar negara bagi membentangkan hasil penyelidikan terkini. SKSM ke-26 merupakan antara wadah besar bagi ahli Sains dan Matematik daripada pelbagai varian bidang di Malaysia berkumpul, bertukar-tukar fikiran, menjalankan hubungan kerjasama untuk kebaikan bersama khususnya dalam memartabatkan ilmu Sains dan Matematik kebangsaan. Pada edisi yang ke-26 ini, Universiti Malaysia Sabah menerusi Fakulti Sains dan Sumber Alam telah dipilih bagi menganjurkan seminar. Dari perspektif yang lain, keindahan lanskap serta keunikan khazanah flora dan fauna di negeri Sabah akan menjadi daya penarik kepada para ahli akademik, penyelidik serta pihak industri untuk menyertai persidangan ini. Secara ringkasnya, penganjuran SKSM ke-26 ini akan merancakkan lagi aktiviti penyelidikan khususnya dalam bidang Sains dan Matematik di Malaysia amnya dan di UMS khasnya. Persidangan ini akan menjadi medium percambahan idea dan seterusnya membuka cetusan inovasi baharu dalam bidang berkenaan.



Objektif

Objektif penganjuran Simposium ini adalah:

- Untuk menyediakan wadah pertemuan dan percambahan idea dalam kalangan para ahli akademik, penyelidik serta pihak industri dalam bidang sains dan matematik dari seantero dunia khususnya rantau Asia Tenggara.
- Untuk merancakkan budaya perkongsian ilmu serta penyelidikan dan sumbangan terkini dalam bidang Sains dan Matematik.
- Untuk membuka jalan untuk menjalin hubungan kerjasama khususnya dalam bidang penyelidikan dan pengkomersilan antara UMS dan agensi-agensi luar.

AHLI JAWATANKUASA SKSM-26

Penaung	Prof. Datuk Dr. D. Kamarudin D. Mudin <i>Naib Canselor Universiti Malaysia Sabah (UMS)</i>	
Penasihat	Prof. Dr. Baba Musta <i>Dekan Fakulti Sains dan Sumber Alam</i>	
	Prof. Dr. Maslina Darus <i>Presiden PERSAMA</i>	
Pengerusi	Prof. Madya Dr. Abdullah Bade	
Timbalan Pengerusi	Prof. Madya Dr. Aini Janteng Dr. Rozaimi Zakaria Dr. Assis Kamu	
Setiausaha	Dr. Darmesah Gabda	
Timbalan Setiausaha	Pn. Chin Su Na Pn. Lynnetha Vivien Ang @ Gigie Aling	
Bendahari	Dr. Suzelawati Zenian	
Timbalan Bendahari	Dr. Noraini Abdullah	
Penerbitan	Sekretariat Dr. Siti Rahayu Mohd Hashim Dr. Asmahani Awang Dr. Kamlisa Uni Kamlun Pn. Zaturrawiah Ali Omar Pn. Fouziah Md. Yassin	Publisiti dan Percetakan Dr. Assis Kamu En. Abu Bakar Abd. Rahman Dr. Zulherry Isnain
Saintifik dan Kesepakaran Semua ahli program HS08 dan HS09	Laman Sesawang dan Pereka Grafik En. Junaidi Asis En. Rechard Lee En. Mohd Redzuan Abdullah	Hospitaliti dan Pengangkutan Pn. Norhafiza Hamzah Dr. Mohd Khalizan Sabullah
Penginapan dan Makanan	Protokol dan Ucapan Dr. Mohd Khalizan Sabullah En. Mohamed Ali Yusof Mohd Husin Pn. Dayang Nur Sakinah Musa Pn. Hardawati Binti Yahya	Jurugambar En. Mohd Redzuan Abdullah
Dr. Newati Wid Pn. Diana Demiyah Mohd Hamdan	Teknikal En. Affendy Bin Hassan En. Abdul Airin B.Termin En.Rozaidi B.Hassan En.Azli Bin Sulid	En. Mohamad Rizan Gulam Hussein En. Erwan Bin Sulin@Silin
En.David Bin Kungin En.Ahmad Dasuki Haji Kopong En.Seli@Seliman Rajion		

RINGKASAN PROGRAM KESELURUHAN

HARI PRA-PENDAFTARAN: 27 NOVEMBER 2018 (SELASA)

Masa	Program	Tempat
1400-1700	Pra-Pendaftaran Peserta	<i>Lobi Hotel Tabung Haji</i>

HARI PERTAMA: 28 NOVEMBER 2018 (RABU)

Sesi Pembentangan Khas							
Masa	Program			Tempat			
09:00 - 10:30	Ucaptama 1: Prof. Ir. Dr. Riza Sulaiman <i>"Measuring Soft Organs in Human Body: Issues and Challenges"</i> Pengerusi Sesi: Puan Dayang Nur Sakinah Musa			<i>Tun Sakaran Ballroom</i>			
10:30 - 11:00	<i>Minum Pagi (Ruang Legar Ballroom)</i>						
11:00 - 12:30	Ucaptama 2: Prof. Dr. Habshah Midi <i>"Robust Statistics: Dealing with Outliers for Better Inferences"</i> Pengerusi Sesi: Dr. Siti Rahayu Mohd Hashim			<i>Tun Sakaran Ballroom</i>			
12:30 - 14:00	<i>Makan Tengahari (Souq Garden)</i>						
Sesi Pembentangan Selari							
Tempat	Lahad Datu	Seri Tawau	Seri Sandakan	Tun Sakaran Ballroom 1	Tun Sakaran Ballroom 2		
	Sesi 1A (Statistik)	Sesi 1B (Matematik Komputasi)	Sesi 1C (Pendidikan Matematik)	Sesi 1D (Matematik Gunaan)	Sesi 1E (Matematik Gunaan)		
1400-1415	S_OP163	C_OP063	E_OP018	A_OP036	A_OP186		
1415-1430	S_OP016	C_OP123	E_OP071	A_OP035	A_OP191		
1430-1445	S_OP030	C_OP077	E_OP103	A_OP038	A_OP021		
1445-1500	S_OP013	C_OP050	E_OP079	A_OP054	A_OP034		
1500-1515	S_OP073	C_OP112	E_OP098	A_OP056	A_OP081		
1515-1530		C_OP084	E_OP015	A_OP019	A_OP118		
1530-1545	<i>Minum Petang (Ruang Legar Ballroom & Ruang Legar Sri Kota Belud)</i>						
Masa	Sesi 2A (Statistik)	Sesi 2B (Lain-lain)	Sesi 2C (Matematik Tulen)	Sesi 2D (Matematik Gunaan)	Sesi 2E (Matematik Gunaan)		
	S_OP065	O_OP105	P_OP041	A_OP012	A_OP060		
1545-1600	S_OP043	O_OP066	P_OP044	A_OP067	A_OP025		
1600-1615	S_OP059	O_OP011	P_OP017	A_OP083	A_OP027		
1615-1630	S_OP061	O_OP183	P_OP020	A_OP051	A_OP171		
1630-1645	S_OP049	O_OP026		C_OP149	A_OP220		

RINGKASAN PROGRAM KESELURUHAN

HARI KE-2: 29 NOVEMBER 2018 (KHAMIS)

Sesi Pembentangan Selari					
Tempat	Lahad Datu	Seri Tawau	Seri Sandakan	Tun Sakaran <i>Ballroom 1</i>	Tun Sakaran <i>Ballroom 2</i>
	Sesi 3A (Statistik)	Sesi 3B (Matematik Komputasi)	Sesi 3C (Matematik Tulen)	Sesi 3D (Pendidikan Matematik dan Lain-lain)	Sesi 3E (Matematik Gunaan)
Sesi Pembentang Jemputan					
0800-0830	S_OP134	C_OP037	P_OP102	E_OP096	A_OP005
0830-0845	S_OP064	C_OP129	P_OP127	E_OP128	A_OP139
0845-0900	S_OP069	C_OP130	P_OP132	E_OP146	A_OP142
0900-0915	S_OP032	C_OP086	P_OP053	E_OP207	A_OP143
0915-0930	S_OP088	C_OP095	P_OP057	E_OP213	A_OP153
0930-0945	S_OP113	C_OP110	P_OP058	E_OP228	A_OP023
0945-1000	S_OP116	C_OP137	P_OP075	E_OP121	A_OP087
1000-1015	S_OP120	C_OP138	P_OP104	O_OP014	A_OP167
1015-1030	S_OP152	C_OP184	P_OP101	O_OP126	A_OP078
1030-1045	<i>Minum Pagi (Ruang Legar Ballroom & Ruang Legar Sri Kota Belud)</i>				
	Sesi 4A (Statistik)	Sesi 4B (Matematik Komputasi)	Sesi 4C (Lain-lain)	Sesi 4D (Matematik Gunaan)	Sesi 4E (Matematik Gunaan)
1045-1100	S_OP131	C_OP176	O_OP225	A_OP154	A_OP155
1100-1115	S_OP230	C_OP140	O_OP205	A_OP156	A_OP164
1115-1130	S_OP169	C_OP141	O_OP046	A_OP158	A_OP085
1130-1145	S_OP199	C_OP166	O_OP229	A_OP117	A_OP099
1145-1200	S_OP206	C_OP192	O_OP178	A_OP136	A_OP109
1200-1215	S_OP219	C_OP209	O_OP200	A_OP089	A_OP162
1215-1230	S_OP212	C_OP210	O_OP045	A_OP218	A_OP223
12:30-1400	<i>Makan Tengahari (Souq Garden & Coffee House)</i>				
	Sesi 5A (Statistik dan Matematik Gunaan)	Sesi 5B (Matematik Komputasi dan Lain-lain)	Sesi 5C (Matematik Tulen)	Sesi 5D (Matematik Gunaan)	Sesi 5E (Matematik Gunaan)
1400-1415	S_OP231	C_OP092	P_OP119	A_OP161	A_OP217
1415-1430	S_OP232	C_OP211	P_OP222	A_OP172	A_OP202
1430-1445	S_OP175	C_OP214	P_OP159	A_OP179	A_OP208
1445-1500	S_OP227	C_OP215	P_OP221	A_OP201	A_OP194
1500-1515	A_OP180	C_OP224	P_OP145	A_OP216	A_OP195
1515-1530	A_OP189	O_OP003	P_OP007	O_OP080	O_OP024
1530-1545	A_OP196	O_OP072	P_OP114		
1545-1600			P_OP168		
1600-1630	<i>Minum Petang (Ruang Legar Ballroom & Ruang Legar Sri Kota Belud)</i>				
19:00	<i>Makan Malam di Tun Sakaran Ballroom</i>				



ATURCARA MAJLIS MAKAN MALAM

SIMPOSIUM KEBANGSAAN SAINS MATEMATIK 2018 (SKSM) KE-26 DAN PENYAMPAIAN ANUGERAH PERSAMA

6.45 malam	Ketibaan Peserta SKSM Ke-26
7.00 malam	Ketibaan Tetamu Jemputan
7.10 malam	Ketibaan Y. Bhg. Prof. Datuk Dr. D. Kamarudin B. Mudin Naib Canselor Universiti Malaysia Sabah
7.20 malam	Majlis Bermula Nyanyian “Negaraku” dan “Sabah Tanah Airku” Persembahan Pembukaan (Tarian Tradisional Sabah)
	Ucapan Aluan oleh Pengerusi SKSM Y. Brs. Prof. Madya Dr. Abdullah Bade
	Ucapan Aluan oleh Pengerusi PERSAMA Y.Brs. Prof. Dr. Maslina Darus
	Ucapan Perasmian oleh Naib Canselor UMS, YBhg. Prof. Datuk Dr. D Kamarudin D Mudin
8.00 malam	Gimik Perasmian Penyampaian Anugerah SKSM ke-26 Penyampaian Cenderahati kepada Perasmian dan PERSAMA Majlis Jamuan Makan Malam Bermula Persembahan Tarian Tradisional Sabah
9.00 malam	SESI BERSAMA PERSAMA Penyampaian Anugerah PERSAMA Majlis Penutupan dengan Simbolik Penyerahan Keris Sesi Bergambar
10.00 malam	Majlis Bersurai

*Kod pakaian: Batik/Formal



PEMBENTANGAN SELARI

28 NOVEMBER 2018

Lahad Datu: Sesi 1A (Statistik)

2 petang – 3:30 petang

Pengerusi Sesi: Dr. Wan Nur Syahidah Wan Yusoff

Bil.	Tajuk	Kod
1.	A Network Topology Approach in Survival Analysis <i>Wan Nur Syahidah Wan Yusoff, Noryanti Muhammad and Chuan Zun Liang</i>	S_OP163
2.	Application of Log-Linear Model to Poisoned Patients: A Case Study of Data from The National Poison Center Universiti Sains Malaysia <i>Fatin Nor Syahira Ariffin, Norlida Mohd Nor and Siti Zulaikha Mohd Jamaludin</i>	S_OP016
3.	Comparison of Feedforward Neural Network with Different Training Algorithms for Bitcoin Price Forecasting <i>Eng Chuen Loh and Shuhaida Ismail</i>	S_OP030
4.	An Empirical Evaluation on the Financial Performance of The Companies in Malaysia With Z Score Model <i>Kavitha Subramaniam, Weng Siew Lam, Weng Hoe Lam and Jia Wai Chen</i>	S_OP013
5.	Investigating the Effects of Monetary and Fiscal Policy on Economic Growth in Asean: A Threshold Modeling Approach <i>Siti Fatimah Ismail and Sek Siok Kun Sek</i>	S_OP073

Seri Tawau: Sesi 1B (Matematik Komputasi)

2:00 petang – 3:30 petang

Pengerusi Sesi: Prof. Dr. Mohd Lazim Abdullah

Bil.	Tajuk	Kod
1.	Homotopy Perturbation Method for Boundary Value Problems with Delay Differential Equations <i>Hamood Mohammed Yousef Ahmed and Ahmad Izani Md Ismail.</i>	C_OP063
2.	Numerical Approximation of Riccati Type Differential Equations <i>Norizarina Ishak, Ahmad Fadly Nurullah Rasedee, Mohammad Hasan Abdul Sathar, Siti Raihana Hamzah, Hazizah Mohd Ijam and Nur Amalina Jamaludin</i>	C_OP123
3.	Distance Measures of Intuitionistic Fuzzy Sets and Its Application to Cancer Diagnosis <i>Sook Wern Chan and Lazim Abdullah</i>	C_OP077
4.	Sumudu Transform and Variational Iteration Methods to Solve Two Point Second Order Linear Boundary Value Problems <i>Asem Al-Nemrat and Zarita Zainuddin</i>	C_OP050
5.	Missing Data Imputation with Hybrid Feature Selection for Fertility Dataset <i>Roselina Sallehuddin, Mohamad Faiz Dzulkalnine, Azlan Mohd Zain, Nor Haizan Mohd Radzi and Noorfa Hazlinna Mustaffa</i>	C_OP112
6.	Logic Mining in Football Matches <i>Mohd Shareduwan Mohd Kasihmuddin, Mohd. Asyraf Mansor, Aslina Baharum and Saratha Sathasivam</i>	C_OP084

PEMBENTANGAN SELARI

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Seri Sandakan: Sesi 1C (Pendidikan Matematik)

2:00 petang – 3:30 petang

Pengerusi Sesi: PM. Zulkifli Ab Ghani Hilmi

Bil.	Tajuk	Kod
1.	Malaysian Undergraduates' Perceptions of Learning Statistics: Study on Attitudes Towards Statistics Using Fuzzy Conjoint Analysis <i>Kathiresan Gopal, Nur Raidah Salim and Ahmad Fauzi Mohd Ayub</i>	E_OP018
2.	Moderating Effects of Additional Mathematics' Achievement During Spm on the Relationship Between Performance in Modern Mathematics and Mathematical Errors Occurrences: A Case Study of MDAB Students in Uitm Melaka <i>Siti Fairus Fuzi, Wan Hartini Wan Hassan, Siti Nursyahira Zainudin, Siti Ramizah Jama, Nurul Emzya Zahidi and Bushra Abdul Halim</i>	E_OP071
3.	Metaphors and Images of Mathematics Among Secondary School Students <i>Roselah Osman, Zulkifli Ab Ghani Hilmi, Nazirah Ramli and Nurhidayah Masni Abdullah</i>	E_OP103
4.	A Study on The Relationship Between Students' Computer Self-Efficacy and Use of ICT In Learning Mathematics: The Level of Students' Mathematics Ability as A Mediator <i>Tahereh Kaboodvand, Tajularipin Sulaiman and Ahmad Fauzi Mohd Ayub</i>	E_OP079
5.	The Transition from Real Numbers to Complex Numbers <i>Elvent Taliban, Kin Eng Chin and Fui Fong Jiew</i>	E_OP098
6.	Students' Perception Toward the Teaching and Learning of Mathematics in Smk Sungai Rambai, Melaka <i>Ahmad Zaki Mohamad Amin, Amirul Mohamad Khairi Mannan, Jedzry Fadzlin Jalaluddin and Fakhrulrozi Hussain</i>	E_OP015

Tun Sakaran Ballroom 1: Sesi 1D (Matematik Gunaan)

2:00 petang – 3:30 petang

Pengerusi Sesi: Prof.Madya Dr. Rosma Mohd Dom

Bil.	Tajuk	Kod
1.	Numerical Investigation to Fuzzy Volterra Integro-Differential Equations Via Residual Power Series Method <i>Mohammad Alshammari, Mohammed Al-Smadi, Ishak Hashim and Mohd Almie Alias</i>	A_OP036
2.	Analytical Approach to Mixed Integro-Differential Equations of Fractional Order Using Power Series Expansion Principle <i>Saleh Alshammari, Mohammed Al-Smadi, Ishak Hashim and Mohd Almie Alias</i>	A_OP035
3.	Review on Mathematical Approach of Cancer Cell Invasion at Subcellular Level <i>Nur Azura Noor Azuan, Sharidan Shafie and Mohd Ariff Admon</i>	A_OP038
4.	Dominance Based Rough Set Approach in Selection of Feasible Stock Investment in Malaysia <i>Nor Ain Binti Sham, Nurul Farah Wahidah Binti Mohamad Noh, Norhidayah Binti A Kadir and Sharifah Fadzlon Binti Abd Hamid.</i>	A_OP054
5.	Radiation Effect on Unsteady Free Convection and Mass Transfer Flow Between Two Vertical Parallel Plates with Newtonian Heating <i>Fasihah Zulkifle, Sharidan Shafie, Ahmad Qushairi Mohamad and Arshad Khan</i>	A_OP056
6.	Ranking of Academic Programs Using Modified Fuzzy TOPSIS <i>Rosma Mohd Dom, Haliza Hasan, Ainon Mardhiah Shahidin and Nur Ainina Apandi</i>	A_OP019

PEMBENTANGAN SELARI

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Tun Sakaran Ballroom 2: Sesi 1E (Matematik Gunaan)

2:00 petang – 3:30 petang

Pengerusi Sesi: Prof. Madya Dr. Aini Janteng

Bil.	Tajuk	Kod
1.	Stability Analysis of Dual Solutions Magnetohydrodynamics (MHD) Stagnation-Point Flow of Carreau Fluid Towards a Stretching/Shrinking Surface with Induced Magnetic Field and Convective Boundary Conditions <i>Mohamad Mustaqim Junoh, Fadzilah Md Ali, Norihan Md Arifin and Norfifah Bachok</i>	A_OP186
2.	Dual Solutions in Nanofluids Passing a Moving Plate with Thermal Radiation and Stability Analysis <i>Nurul Shahirah Mohd Adnan, Norihan Md Arifin, Norfifah Bachok and Fadzilah Md Ali.</i>	A_OP191
3.	Priotization of Selectin Criteria for Halal Chicken Suppliers using Fuzzy AHP: A Case Study <i>Ibtihaj Kamaruzaman and Pa'Ezah Hamzah</i>	A_OP021
4.	A Service Quality Index for Evaluating and Improving Container Depot Services <i>Khairul Rizuan Suliman, Zahid Sultan, Weng Siew Lam and Weng Hoe Lam</i>	A_OP034
5.	G-Jitter Fully Developed Heat Transfer by Mixed Convection Flow in A Vertical Channel with Newtonian Heating <i>Wan Nor Zaleha Amin, Sharidan Shafie and Mohammed Abdulhameed.</i>	A_OP081
6.	A Non-Linear Stochastic Consols Model of Malaysia <i>Norizarina Ishak, Nur Syahirah Abd Munil, Ahmad Fadly Nurullah Rasadee and Abu Bakar Hasan</i>	A_OP118

Lahad Datu: Sesi 2A (Statistik)

3:45 petang – 5:00 petang

Pengerusi Sesi: Dr. Assis Kamu

Bil.	Tajuk	Kod
1.	Construction of Confidence Interval of The Parameter In Von Mises Distribution Using Bootstrap Methods <i>Nor Hafizah Moslim, Yong Zulina Zubairi, Abdul Ghapor Hussin, Siti Fatimah Hassan and Nurkhairany Amyra Mokhtar</i>	S_OP065
2.	Energy Consumption, Environmental Degradation and Growth: A Panel Data Analysis <i>Sayed Kushairi Sayed Nordin and Siok Kun Sek</i>	S_OP043
3.	Parameter Estimation and Covariance Matrix of The Linear Functional Relationship Model for Circular Variables with Unequal Error Concentrations <i>Nurkhairany Amyra Mokhtar, Yong Zulina Zubairi, Abdul Ghapor Hussin and Nor Hafizah Moslim.</i>	S_OP059
4.	Comparison Between Bayesian And Frequentist Approach an The Analysis of Risk Factors Among Female Cardiovascular Disease Patients in Malaysia <i>Nurliyana Juhan, Yong Zulina Zubairi, Zarina Mohd Khalid and Ahmad Syadi Mahmood Zuhdi</i>	S_OP061
5.	The Impact of Outliers on Parameter Estimation Method for Bilinear Model <i>Mohd Isfahani Ismail, Hazlina Ali and Sharipah Soaad Syed Yahaya</i>	S_OP049

PEMBENTANGAN SELARI

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Seri Tawau: Sesi 2B (Lain-Lain)

3:45 petang – 5:00 petang

Pengerusi Sesi: Dr. Yuhani Yusof

Bil.	Tajuk	Kod
1.	Optimal Medicinal Cupping Points Selection for Astma Disease <i>Yuhani Yusof, Mohd Sham Mohamad, Noraziah Adzhar, Nurfatihah Mohamad Hanafi, Martha Elizabeth & Mohd Adhha Ibrahim</i>	O_OP105
2.	The Application of Fuzzy Analytic Hierarchy Process (FAHP) Approach with Different Triangular Fuzzy Numbers (TFNS) To Solve Multi-Criteria Decision Making (MCDM) Problems <i>Nor Faradilah Mahad, Noreha Mohamed Yusof and Norul Fadhilah Ismail</i>	O_OP066
3.	Comparative Study of Weighted Product–Dijkstra’s Algorithm and All Possible Path Approach Based on Multiple Criteria and Multi-Dimensions <i>Kien Hua Ting and Noraini Abdullah</i>	O_OP011
4.	Fuzzy A-Cut Using Trapezoidal Fuzzy Numbers <i>Irdayu Ibrahim, Noraida Abdul Ghani and Norazura Ahmad</i>	O_OP183
5.	A Multi-Landfill Site Selection Model for an Effective Solid Waste Management using Greedy Heuristic: A Case Study <i>Nur Azriati Mat, Aida Mauziah Benjamin and Syariza Abdul-Rahman</i>	O_OP026

Seri Sandakan: Sesi 2C (Matematik Tulen)

3:45 petang – 5:00 petang

Pengerusi Sesi: Suriana Alias

Bil.	Tajuk	Kod
1.	Exponential Sums for Seventh Degree Polynomial <i>Chee Wai Low, Siti Hasana Sapar and Mohamat Aidil Mohamat Johari</i>	P_OP041
2.	Bounds of The Coefficient Estimates for Subclass of Bi-Univalent Functions <i>Nurdiana Nurali, Aini Janteng and Rashidah Omar</i>	P_OP044
3.	The Topological Indices of The Non-Commuting Graph for Symmetric Group <i>Nur Idayu Alimon, Nor Haniza Sarmin and Ahmad Erfanian</i>	P_OP017
4.	Rough Neutrosophic Multisets Relation on Two Universal Sets <i>Suriana Alias and Daud Mohamad</i>	P_OP020

PEMBENTANGAN SELARI

28 NOVEMBER 2018

Tun Sakaran Ballroom 1: Sesi 2D (Matematik Gunaan)

3:45 petang – 5:00 petang

Pengerusi Sesi: Prof.Madya Dr. Rozaimi Zakaria

Bil.	Tajuk	Kod
1.	Accuracy Improvement for Parkinson's Disease Classification Using Fuzzy Cluster and Forward Feature Selection with Support Vector Machine <i>Roselina Sallehuddin, Tay Tze Loong, Nor Haizan Mohd Radzi, Azlan Mohd Zain and Noorfa Hazlinna Mustaffa</i>	A_OP012
2.	Mixed Convection Boundary Layer Flow on A Solid Sphere in A Nanofluid with the Presence of Viscous Dissipation <i>Muhammad Khairul Anuar Mohamed, Mohd Zuki Salleh, Anuar Ishak and Roslinda Nazar.</i>	A_OP067
3.	Sensitivity Analysis Technique for Fuzzy TOPSIS Using Sensitive-Simple Additive Weighting Method <i>Daud Mohamad and Siti Aishah Ibrahim.</i>	A_OP083
4.	Application of Fuzzy TOPSIS For Dry Goods Supplier Selection: A Case Study <i>Nor Ain Mohamad Yusri and Paezah Hamzah.</i>	A_OP051
5.	Haar Wavelet Quasilinearization Method for Solving Bratu's Problem <i>Artisham Che Ghani and Zailan Siri</i>	C_OP149

Tun Sakaran Ballroom 2: Sesi 2E (Matematik Gunaan)

3:45 petang – 5:00 petang

Pengerusi Sesi: Dr. Noraini Abdullah

Bil.	Tajuk	Kod
1.	Stability and Sensitivity Analysis of The Fractional Order Dengue Model <i>Nur Izzati Hamdan and Adem Kilicman.</i>	A_OP060
2.	Impact of An Ageing Population on Pension Expenditure in Malaysia <i>Rose Irnawaty Ibrahim, Mazlynda Md Yusuf and Wan Nur Azifah Wan Mohd Abrisam</i>	A_OP025
3.	Estimating Health Expenditure Among Social Security Organisation (SOCSO) Contributors: A Simulation Study <i>Zarul Khaliff Kamal, Noriszura Ismail and Shamshimah Samsuddin</i>	A_OP027
4.	An Efficient Solver for Solving Chemical Kinetic Equations Using Higher Order Block Backward Differentiation Formula <i>Asma Izzati Asnor, Siti Ainor Mohd Yatim and Zarina Bibi Ibrahim</i>	A_OP171
5.	Cubic Trigonometric G^1 Spline for Preserving Positive Data <i>Nur Azliana Azlin Ahmad Munir, Fatimah Yahya and Normi Abdul Hadi</i>	A_OP220

PEMBENTANGAN SELARI

29 NOVEMBER 2018

Lahad Datu: Sesi 3A (Statistik)
8:00 pagi – 10:30 pagi
Pengerusi Sesi: Dr. Noryanti Muhammad

Bil.	Tajuk	Kod
1.	Pembentang Jemputan: Performance of Parametric Model for Line Transect Data Noryanti Muhammad, Gamil Abdulraqeb Abdullah Saeed and Wan Nur Syahidah Wan Yusoff	<u>S_OP134</u>
2.	Household Income Prediction Model Due to Fluctuation Fuel Price in Malaysia: A Review Norhana Abd. Rahim and Yumn Suhaylah Yusoff	<u>S_OP064</u>
3.	Measuring the Relationship of Bivariate Data Using Hodges Lehman Estimator Suhaida Abdullah, Nur Amira Zakaria, Nor Aishah Ahad, Norhayati Yusof and Sharipah Soaad Syed Yahaya	<u>S_OP069</u>
4.	The Impact ff Ageing Population Towards Malaysian Economic Growth Mazlynda Md Yusuf, Sarina Mohamed and Mohamad Yazis Ali Basah	<u>S_OP032</u>
5.	Nonparametric Estimation for Slope of a Replicated Linear Functional Relationship Mode Azuraini Mohd Arif, Yong Zulina Zubairi and Abdul Ghapor Hussin	<u>S_OP088</u>
6.	Rest Module Using A Four-Steps Approach Based on Case Study Example and Infographic for SPSS Novice Users: Design and Development Azura Ishak	<u>S_OP113</u>
7.	The Robustness of H Statistic in The Test of Comparing Independent Groups Suhaida Abdullah, Kian Wooi Teh, Sharipah Soaad Syed Yahaya and Zahayu Md Yusof	<u>S_OP116</u>
8.	Non-Stationary in Extreme Share Return: World Indices Application Muhammad Fadhil Marsani and Ani Shabri	<u>S_OP120</u>
9.	Simulation Study of Adjusted Spatial Weighting Method to Estimate Missing Rainfall Data Muhammad Az-Zuhri Azman, Roslinazairimah Zakaria and Siti Zanariah Satari	<u>S_OP152</u>

PEMBENTANGAN SELARI

29 NOVEMBER 2018

Seri Tawau: Sesi 3B (Matematik Komputasi)

8:00 pagi – 10:30 pagi

Pengerusi Sesi: Dr. Mohammad Fadzli Ramli

Bil.	Tajuk	Kod
1.	Pembentang Jemputan: Preliminary Design of Crow Search Metaheuristics Algorithm for Vehicle Routing Problem Mohammad Fadzli Ramli, Nur Arif Azezan and Muhammad Hafiz Masran	C_OP037
2.	Higher Order Runge-Kutta Method for Solving Fuzzy Differential Equations Fuzyiah Ishak and Nor Salihah Zakaria	C_OP129
3.	New Development of Extended Trapezoidal Method for Solving First Order Linear Volterra Integro-Differential Equations Fuzyiah Ishak and Muhammad Nur Firdaus Selamat	C_OP130
4.	Interaction of A Spatial Soliton on An Interface Between Two Nonlinear Media Mohd Azid Mat Din, Aizuddin Ahmad Kamely, Bakhram Umarov and Nor Amirah Busul Akilan	C_OP086
5.	3-Satisfiability Data Mining Technique with Hybrid Clonal Selection Algorithm for Autistic Spectrum Disorder Screening Mohd Asyraf Mansor, Mohd Shareduwan Mohd Kasihmuddin, Aslina Baharum And Saratha Sathasivam	C_OP095
6.	Routing Problem in Rectangular Mesh Network Using Djikstra's Based Greedy Method Noraziah Adzhar, Yuhani Yusof and Muhammad Azrin Ahmad	C_OP110
7.	Evolution of Face Detection Techniques in Digital Images Tulasii Sivaraja and Abdullah Bade	C_OP137
8.	Enhanced AdaBoost Haar Cascade Classifier Model to Detect Partially Occluded Faces in Digital Images Tulasii Sivaraja and Abdullah Bade	C_OP138
9.	Wave Reflection and Propagation at Staircase Boundaries in Finite-Difference Models Muhamad Najib Zakaria	C_OP184

PEMBENTANGAN SELARI

29 NOVEMBER 2018

Seri Sandakan: Sesi 3C (Matematik Tulen)

8:00 pagi – 10:30 pagi

Pengerusi Sesi: Dr. Hazzirah Izzati Mat Hassim

Bil.	Tajuk	Kod
1.	Pembentang Jemputan: A Homological Invariant of Certain Torsion Free Crystallographic Groups <i>Hazzirah Izzati Mat Hassim, Nor Haniza Sarmin and Nor Muhainiah Mohd Ali</i>	P_OP102
2.	The Non-Normal Subgroup of Some Dihedral Groups <i>Nabilah Fikriah Rahin, Nor Haniza Sarmin and Sheila Ilangovan</i>	P_OP127
3.	On A Subclass of Harmonic Mappings Associated with Hypergeometric Functions <i>Chandrashekar Ramasamy</i>	P_OP132
4.	The Energy of Cayley Graphs for Symmetric Groups of Order 24 <i>Amira Fadina Ahmad Fadzil, Nor Haniza Sarmin and Ahmad Erfanian</i>	P_OP053
5.	A Mathematical Representation of a Bieberbach Group with Quaternion Point Group of Order Eight <i>Siti Afiqah Mohammad, Nor Haniza Sarmin and Hazzirah Izzati Mat Hassim</i>	P_OP057
6.	Cayley Graph for The Non-Abelian Tensor Square of a Symmetric Group <i>Athirah Zulkarnain, Nor Haniza Sarmin and Hazzirah Izzati Mat Hassim</i>	P_OP058
7.	1-Normal Form for Static Watson-Crick Regular and Linear Grammars <i>Agilahfarhana Abdul Rahman, Wan Heng Fong, Nor Haniza Sarmin and Sherzod Turaev</i>	P_OP075
8.	Inclusion and Subordination Properties for Subclass of Analytic Functions Associated with Integral Operator <i>Anessa Oshah and Maslina Darus</i>	P_OP104
9.	Automata for DNA Splicing Languages with Two Restriction Enzymes <i>Nurul Izzaty Ismail, Wan Heng Fong and Nor Haniza Sarmin</i>	P_OP101

PEMBENTANGAN SELARI

29 NOVEMBER 2018

Tun Sakaran Ballroom 1: Sesi 3D (Pendidikan Matematik & Lain-lain)

8:00 pagi – 10:30 pagi

Pengerusi Sesi: Dr. Lee Fong Ng

Bil.	Tajuk	Kod
1.	Pembentang Jemputan: Making Sense in Mathematics Through Perception, Operation & Reason: The Case of Divisibility of a Segment <i>Lee Fong Ng, Vincent Pang and Kin Eng Chin</i>	E_OP096
2.	A Framework for Diagnosing Dyscalculia <i>Wong Ken Keong, Vincent Pang Ah Fook, Chin Kin Eng and Tan Choon Keong</i>	E_OP128
3.	Relationship Between Attitude Towards Mathematics and Problem-Solving Achievement Among Pre-University Students in Malaysia <i>Suriati Abu Bakar and Ahmad Fauzi Mohd Ayub</i>	E_OP146
4.	Application of Sakamoto Math Method in Solving Mathematical Word Problems for Year 5 Pupils <i>Wong Pei Wen, Norulhuda Ismail, Marlina Ali, Sharifah Osman and Corrienna Abdul Talib</i>	E_OP207
5.	Relationship Between Higher Order Thinking and Metacognitive Skills with Hands-On Teaching Among Primary School Science Teachers in Jempol District <i>Punnithann Subramaniam, Tajularipin Sulaiman and Nurzatulshima Kamarudin</i>	E_OP213
6.	Undergraduate Students' Profile Based on Attitudes Towards Statistics <i>Rosnalini Mansor, Bahtiar Jamili Zaini, Zahayu Md Yusof, Darmesah Gabda and Winne Wong</i>	E_OP228
7.	Understanding the Use of Mobile E-Book Among Postgraduate Mathematics Students <i>Malathi Letchumanan, Mariam Mohamad and Elenchothy Davrajoo</i>	E_OP121
8.	Evaluating the Performance of Multi-Project by Using Data Envelopment Analysis (DEA) <i>Ruzanita Mat Rani, Azwa Shawani Kamalul Arifin, Nursyazana Norazman and Wan Nursyahada Nazurah Meor Muhammad Sulaiman</i>	O_OP014
9.	Condorcet Voting Theory Based on Analytical Hierarchy Process (AHP) Method for Project Selection Problems <i>Nor Faradilah Mahad, Nur Ain Shahidah Mohd Azli, Nur Anis Fatihah Razalli and Noor Nadhirah Mohd Nor Azmi</i>	O_OP126

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Tun Sakaran Ballroom 2: Sesi 3E (Matematik Gunaan)

8:00 pagi – 10:30 pagi

Pengerusi Sesi: Dr. Sharmila Karim

Bil.	Tajuk	Kod
1.	Pembentang Jemputan: Implementation of circular operation for generating starter sets under iterative procedure <i>Sharmila Karim, Haslinda Ibrahim</i>	A_OP005
2.	Forecasting on The Collapse of Rational Speculative Bubble in Hang Seng, Nikkei 225 And S&P500 in 2018 <i>Nurfadhlina Abdul Halim, Nurmaryanti Borhan, Nadhirah Gazali and Wan Muhamad Amir W. Ahmad</i>	A_OP139
3.	Elasticity Effects on Hydromagnetic Convective Instability in Viscoelastic Nanofluid Layer <i>Norazuwini Najihah Mat Tahir and Seripah Awang Kechil</i>	A_OP142
4.	Two-Point Block Method for Van Der Pol Equation <i>Nooraini Zainuddin and Zarina Bibi Ibrahim</i>	A_OP143
5.	Free Convection Boundary Layer Flow of Viscoelastic Micropolar Fluid Past a Horizontal Circular Cylinder <i>Laila Amera Aziz, Abdul Rahman Mohd Kasim, Mohd Zuki Salleh and Sharidan Shafie.</i>	A_OP153
6.	An Enhanced Mean-Extended Gini Model in Portfolio Optimization with Different Level of Risk Aversion <i>Saiful Hafizah Jaaman, Weng Siew Lam and Weng Hoe Lam</i>	A_OP023
7.	Measuring Technical Efficiency of Construction Listed Companies Based on Different Distribution using Stochastic Frontier Model <i>Roslah Arsat and Zaidi Isa</i>	A_OP087
8.	The Effect of Edge Stopping Function in Perona Malik Anisotropic Diffusion Model as Image Denoising On Digital Radiographic Image <i>Suhaila Abd Halim, Arsmah Ibrahim & Yupiter Hp Manurung</i>	A_OP167
9.	Laplace Transform on Casson MHD Hybrid Nanofluid Using Caputo Fractional Model <i>Sidra Aman, Zulkhibri Ismail, Mohd Zuki Salleh and Ilyas Khan.</i>	A_OP078

PEMBENTANGAN SELARI

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Lahad Datu: Sesi 4A (Statistik)
10:45 pagi – 12:30 tengahari
Pengerusi Sesi: Dr. Malina Zulkifli

Bil.	Tajuk	Kod
1.	Comparative Study of Grab and Taxi in Kuala Lumpur <i>Malina Zulkifli and Muhammad Yasir Mohamad Yunus</i>	S_OP131
2.	Modelling Extreme Rainfall Using Adjusted Sandwich Estimator <i>Nur Farhanah Kahal Musakkal and Darmesah Gabda</i>	S_OP230
3.	Exploratory Factor Analysis of Multi-Functional Benefits for Urban Agriculture Development: Households Perspective in Malaysia <i>Pushpawani Ramalo, Choong-Yeun Liong, Chamhuri Siwar& Anizan Isahak</i>	S_OP169
4.	Multistep Forecasting for Highly Volatile Data Using New Algorithm of Box-Jenkins and GARCH <i>Siti Roslindar Yaziz and Roslinazairimah Zakaria</i>	S_OP199
5.	Generalizations of Burr Type X Distribution with Applications <i>Noor Akma Ibrahim and Mundher Abdullah Khaleel</i>	S_OP206
6.	Modelling the Demand of Fresh Meat by Households in Malaysia <i>Nordiana Marjan Rusli and Assis Kamu</i>	S_OP219
7.	Predicting Return on Equity Based on Significant Determinants for Islamic Banks in Malaysia <i>Rashidah Ismail, Shahirulliza Shamsul Ambia, Nur Liyana Basir, Liza Nurul Fazila O.K. Rahmat and Abd Aziz Samson</i>	S_OP212

Seri Tawau: Sesi 4B (Matematik Komputasi)

10:45 pagi – 12:30 tengahari

Pengerusi Sesi: Dr. Suhaila Abd Halim

Bil.	Tajuk	Kod
1.	Computational Method for Digital Khat Calligraphy Using Beta-Spline Curve Fitting <i>Normi Abdul Hadi, Nur Sabrina Mohd Kamala and Hannani Nordin</i>	C_OP176
2.	A Current Development of Flow Visualization: Techniques and Methods <i>Danny Ngo Lung Yao and Abdullah Bade</i>	C_OP140
3.	Underwater Image Enhancement Using Enhanced Detail & Dehaze Technique (DDE) <i>Danny Ngo Lung Yao and Abdullah Bade</i>	C_OP141
4.	The Use of Mathematical Morphology and Template Matching in Automatic Car Plate Number Recognition <i>Muhammad Anwari Zulkpli, Mohd Syazreen Zulkifli & Suhaila Abd Halim</i>	C_OP166
5.	Standard Deviation Based Otsu For Breast Cancer Classification <i>Siti Salmah Yasiran, Shaharuddin Salleh and Rozi Mahmud</i>	C_OP192
6.	Normal Type-2 Fuzzy B-Spline Surface <i>Reedzal Shahreen Adesah and Rozaimi Zakaria</i>	C_OP209
7.	Improving Dynamic Crowd Simulation Using Visual Cues <i>Iznora Aini Zolkifly and Abdullah Bade</i>	C_OP210

PEMBENTANGAN SELARI

29 NOVEMBER 2018

Seri Sandakan: Sesi 4C (Lain-lain)
10:45 pagi – 12:30 tengahari
Pengerusi Sesi: Dr. Khairul Anuar Mohamad

Bil.	Tajuk	Kod
1.	Electrical and Photo-Electrical Characteristics of an III-V Dilute Nitride P-I-N Diode with Multiple Quantum Wells <i>Khairul Anuar Mohamad, Muhammad Izzuddin Abd Samad, Mohammad Syahmi Nordin, Afishah Alias, Adrian Boland-Thomas and Anthony John Wicker</i>	O_OP225
2.	Analysis of Human's Attention Value in Gender and Age Category Using Mindwave Mobile <i>Norasyimah Sahat, Afishah Alias and Fouziah Md Yassin</i>	O_OP205
3.	Structural and Optical Properties of ZnO And MgZnO Semiconductor Materials at Different Deposition Time and Temperature <i>Mivolil Duinong, Fuei Pien Chee, Ira Haipa, Jackson Chang Hian Wui, Afishah Alias and Saafie Salleh</i>	O_OP046
4.	Correlation Between Physico-Chemical Properties and Engineering Properties of Soils from Pinousuk Gravel Deposit of Mesilou, Kundasang, Sabah <i>Hennie Fitria W Soehady E., Baba Musta, Darmesah Gabda and Junaidi Asis</i>	O_OP229
5.	Electrical Simulation of Different Thickness Ratio for PCBM and PTAA in Bilayer Organic Solar Cells <i>Norjannah Yusop, Chee Fuei Pien, Afishah Alias and Abu Bakar Abd. Rahman</i>	O_OP178
6.	Effects of Temerature Dependence on Electrical Characterization of Hybrid ZnO/PTAA Based Heterojunction Diode <i>Abdul Ismail Abdul Rani, Bablu Kumar Ghosh, Khairul Anuar Mohamad, Fuei Pien Chee, Mohd Shahril Osman and Ismail Saad</i>	O_OP200
7.	Estimation of Particle Distribution Based on Particulate Mass Concentration for Indoor Ambient Air Monitoring <i>Angelo Sean Francis Tiwon, Fuei Pien Chee, Jackson Chang Hian Wui and Justin Sentian</i>	O_OP045

PEMBENTANGAN SELARI

29 NOVEMBER 2018

Tun Sakaran Ballroom 1: Sesi 4D (Matematik Gunaan)

10:45 pagi – 12:30 pagi

Pengerusi Sesi: En. Muhammad Azlan Daud

Bil.	Tajuk	Kod
1.	Steady Magnetohydrodynamics flow of Third-Grade Non-Newtonian Nanofluid in Porous Coaxial Cylinders <i>Zubaidah Sadikin and Seripah Awang Kechil</i>	A_OP154
2.	Mathematical Modelling for Predicting the Performance of Photovoltaic Module <i>Siti Nurashiken Md Sabudin and Norazaliza Mohd Jamil</i>	A_OP156
3.	Use of The CFEA Lossless Data Compression Method in Transmitting Encrypted Modified Baptista Symmetric Chaotic Cryptosystem Data <i>Muhammad Azlan Daud, Zahari Mahad and Mohamad Rafley Abdul Rasit</i>	A_OP158
4.	Hierarchical Simulated Annealing for Quadratic Assignment Problem <i>Shah Haziq Shahrin and Mohamed Saifullah Hussin</i>	A_OP117
5.	Interaction Between Two Inclined Cracks in Bonded Dissimilar Materials <i>Khairum Hamzah, Nik Mhd Asri Nik Long, Norazak Senu and Zainidin Eshkuvativ</i>	A_OP136
6.	Stability Analysis of Micropolar Fluid Flow Over an Exponentially Permeable Shrinking Sheet <i>Rusya Iryanti Yahaya, Norihan Md Arifin and Siti Suzilliana Putri Mohamed Isa.</i>	A_OP089
7.	MHD Casson Fluid Flow Over A Non-Linear Stretching/Shrinking Sheet with Suction and Slip Boundary Condition <i>Mohd Ezad Hafidz Hafidzuddin, M. Norsyawalladin Idris and Norihan Md Arifin</i>	A_OP218

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29 NOVEMBER 2018

Tun Sakaran Ballroom 2: Sesi 4E (Matematik Gunaan)

10:45 pagi – 12:30 tengahari

Pengerusi Sesi: Dr. Sumarni Abu Bakar

Bil.	Tajuk	Kod
1.	Steady Marangoni Instability in a Liquid Layer with Deformable Free Surface in the Presence of Insoluble Surfactant and Internal Heat Generation Subject to Uniform Temperature <i>Razihan Allias, Mohd Agos Salim Nasir and Seripah Awang Kechil</i>	A_OP155
2.	Fuzzy Golden Cross and Fuzzy Death Cross as Stock Market Forecasting Indicator <i>Noor Ainy Harish, Siti Khatijah M Hairullah and Sumarni Abu Bakar.</i>	A_OP164
3.	Application of Graph Theory and Matrix Approach as Decision Analysis Tool for Smartphone Selection <i>Sumarni Abu Bakar, Elsie Janisip, Noor Ainy Harish and Kahartini Abdul Rahman.</i>	A_OP085
4.	The Application of Discrete Fourier And Wavelet Transforms in Reducing the Calibration Effort of Indoor Positioning Systems <i>Anvar Narzullaev, Zahridin Muminov, Zainidin Eshkuvatov and Norazmir Mohd Nordin</i>	A_OP099
5.	g-Jitter Induced Free Convection Flow Near A Three-Dimensional Stagnation Point Region in Nanofluid With Heat Generation <i>Mohamad Hidayad Ahmad Kamal, Noraihan Afiqah Rawi, Anati Ali and Sharidan Shafie</i>	A_OP109
6.	Mathematical Analysis for a System of Nonlinear Ordinary Differential Equations Related to Ethanol Production <i>Ahmad Izul Fakhruddin Azimi and Norazaliza Mohd Jamil</i>	A_OP162
7.	Alternating Direction Implicit (ADI) Method for Solving Two Dimensional (2-D) Transient Heat Equation <i>Norzilah Abdul Halif and Nursalasawati Rusli</i>	A_OP223

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29 NOVEMBER 2018

Lahad Datu: Sesi 5A (Statistik & Matematik Gunaan)

2:00 petang – 4:00 petang

Pengerusi Sesi: Dr. Siti Rahayu Hashim

Bil.	Tajuk	Kod
1.	An Application of Univariate and Multivariate Control Charts in Monitoring Water Quality <i>Siti Rahayu Hashim, Azwaan Andrew and Wilter Azwal Malandi</i>	S_OP231
2.	An Application of Non-Parametric Method and Simple Linear Regression in Rainfall Partitioning in Tropical Lowland Forest of Sepilok Forest Reserve, Sabah <i>Maznah Mahali and Siti Rahayu Mohd Hashim</i>	S_OP232
3.	Detection of Outliers in the Volatility of Malaysia Shariah Compliant Index Return: The Impulse Indicator Saturation Approach <i>Ida Normaya Mohd Nasir and Mohd Tahir Ismail</i>	S_OP175
4.	Comparison of Double Exponential Smoothing for Holt's Method and Artificial Neural Network in Forecasting the Four Major Malaysia Stock Markets <i>Bahtiar Jamili Zaini, Rosnalini Mansor, Zahayu Md Yusof, Darmesah Gabda and Wong Kah Seng</i>	S_OP227
5.	Mathematical Formulation on Non-Newtonian Dusty Fluid Over Vertical Stretching Sheet <i>Nur Syamilah Arifin and Abdul Rahman Mohd Kasim</i>	A_OP180
6.	Intuitionistic Fuzzy B-Spline Surface Modeling For 3 – Dimensional Data Problem <i>Abd Fatah Wahab and Mohammad Izat Emir Zulkifly Zulkifly</i>	A_OP189
7.	Otsu and Mathematical Morphology for Breast Cancer Classification <i>Siti Salmah Yasiran, Shaharuddin Salleh And Rozi Mahmud</i>	A_OP196

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29 NOVEMBER 2018

Seri Tawau: Sesi 5B (Matematik Komputasi & Lain-lain)
2:00 petang – 4:00 petang
Pengerusi Sesi: Dr. Suzelawati Zenian

Bil.	Tajuk	Kod
1.	Contrast Enhancement of Flat Electroencephalography Image <i>Suzelawati Zenian, Tahir Ahmad and Amidora Idris</i>	C_OP092
2.	Computational Prediction of Aging-Related Proteins <i>Siti Raihan Halilan and Sakhinah Abu Bakar</i>	C_OP211
3.	The Framework of Collision Detection for Rigid Bodies in Virtual Environment <i>Nur Syazwani Sukormo, Hamzah Asyran Sulaiman, Ahmad Naim Che Pee and Raidah Yazid</i>	C_OP214
4.	The Framework of Collision Detection Algorithm for Deformable Object in Virtual Environment <i>Raidah Yazid, Hamzah Asyran Sulaiman, Ahmad Naim Che Pee and Nur Syazwani Sukormo</i>	C_OP215
5.	Computation of The Best Approximations for Theta-Expansion of Continued Fractions Using Maple <i>Khairun Nisak Muhammad and Hailiza Kamarulhaili</i>	C_OP224
6.	The Mathscinet Citation Database and Its Relevance <i>Rosihan Ali</i>	O_OP003
7.	Optimization of Students Allocation into Academic Programs Using Goal Programming Approach <i>Nur Rasyida Mohd Rashid, Bushra Abdul Halim and Nasruddin Hassan</i>	O_OP072

Seri Sandakan: Sesi 5C (Matematik Tulen)
2:00 petang – 4:00 petang
Pengerusi Sesi: Prof. Madya Dr. Nor Muhainiah Mohd Ali

Bil.	Tajuk	Kod
1.	Graph Related to Cubed Commutativity Degree <i>Nor Muhainiah Mohd Ali, Muhanizah Abdul Hamid, Nor Haniza Sarmin and Ahmad Erfanian</i>	P_OP119
2.	Encryption Scheme Using Non-Abelian Group Based on Conjugacy Search Problem <i>Yi Xuan Lee, Denis Chee Keong Wong and Wun She Yap</i>	P_OP222
3.	Coefficient Estimates and Fekete-Szegö Results for Some Subclasses of Bi-Univalent Functions <i>Andy Liew Pik Hern and Aini Janteng</i>	P_OP159
4.	Some Construction of Complete Decomposition of Dihedral Group <i>Chang Seng Sin, Huey Voon Chen and Chee Keong Denis Wong</i>	P_OP221
5.	On Isomorphism Classes of Low Dimensional Non-Lie Filiform Leibniz Algebras Over \mathbb{Z}_P <i>Nur Syafiqah Edora Ariffin, Sharifah Kartini Said Husain and Siti Hasana Sapar</i>	P_OP145
6.	Inequalities on An Extended Bessel Function <i>See Keong Lee</i>	P_OP007
7.	Orderly Set Graph for Some Metacyclic P-Groups of Odd Prime <i>Siti Norziahidayu Zamri and Nor Haniza Sarmin</i>	P_OP114
8.	Constructing Scalar Multiplication Via Elliptic Net of Rank Two <i>Norliana Muslim & Mohamad Rushdan Md Said</i>	P_OP168

PEMBENTANGAN SELARI

29 NOVEMBER 2018

Tun Sakaran Ballroom 1: Sesi 5D (Matematik Gunaan & Lain-lain)

2:00 petang – 4:00 petang

Pengerusi Sesi: Pn. Nurul Hafizah Zainal Abidin

Bil.	Tajuk	Kod
1.	Magnetic Field and Feedback Control Effects in A Double Diffusive Binary Fluid with Temperature Dependent Viscosity <i>Nurul Hafizah Zainal Abidin, Nor Fadzillah Mohd Mokhtar and Zanariah Abdul Majid</i>	A_OP161
2.	Prediction of PM10 Time Series at Industrial Area Through an Improved Local Approximation Method <i>Nor Zila Abd Hamid</i>	A_OP172
3.	Lower Stagnation Point Flow of Jeffrey Nanofluid On A Sphere with Mixed Convection <i>Syazwani Mohd Zokri and Mohd Zuki Salleh.</i>	A_OP179
4.	A New Modification of Conjugate Gradient Method with Global Convergence Properties <i>Mouiyad Bani Yousef, Mustafa Mamat and Mohd Rivaie</i>	A_OP201
5.	Exploring Fruit-Fly Evolutionary Algorithm in A University Examination Timetabling Environment <i>Syariza Abdul-Rahman, Aida Mauziah Benjamin, Razamin Ramli, Ku-Ruhana Ku-Mahamud and Mohd Faizal Omar</i>	A_OP216
6.	Mathematisation Of Cosmology In ibn Sīnā And Al-Bīrūnī Correspondence <i>Muhammad Ikhwan Azlan.</i>	O_OP080

Tun Sakaran Ballroom 2: Sesi 5E (Matematik Gunaan & Lain-lain)

2:00 petang – 4:00 petang

Pengerusi Sesi: Dr. Rozaimi Zakaria

Bil.	Tajuk	Kod
1.	MHD Stagnation Point Nanofluid Flow over a Permeable Stretching Sheet with Thermophoresis and Brownian Motion Effects <i>Zaileha Md Ali and Siti Khuzaimah Soid</i>	A_OP217
2.	Dual-Uncertainty Fuzzy Bezier Curve Modeling <i>Asdalifah Talibe, Rozaimi Zakaria, Abdullah Bade and Suzelawati Zenian.</i>	A_OP202
3.	Fuzzy B-spline Curved Surface Modeling <i>Rozaimi Zakaria, Abd. Fatah Wahab and Isfarita Ismail</i>	A_OP208
4.	Boundary Layer Flow of Williamson Nanofluid Over A Stretching Sheet with Slips Effect in Porous Medium <i>Shazwani Md Razi, Siti Khuzaimah Soid, Ahmad Sukri Abd Aziz, Noorashikin Adli and Zaileha Md Ali.</i>	A_OP194
5.	Unsteady Flow of Rotating Brinkman Type Fluid in Moving Vertical Disk <i>Ahmad Qushairi Mohamad, Muhamad Najib Zakaria, Ilyas Khan, Sharidan Shafie and Zulkhibri Ismail.</i>	A_OP195
6.	Tourist Satisfaction Factors Via Analytic Hierarchy Process Decision Model on Cultural-Tourism in Sabah <i>Thavamalar Ramamoorthy and Noraini Abdullah</i>	O_OP024

ABSTRAK PENGUCAPTAMA



Measuring Soft Organs in Human Body: Issues and Challenges

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Measuring soft organs in human body need certain criteria. Mathematical modeling is used tremendously to achieve the criteria. This research introduces measuring technique using algorithms bank method to measure the liver volume of humans, with accuracy and reducing the error rate. The research methodology was divided into four phases, phase one is image source, which is used to convert image source from CT and MRI to DICOM file. Phase two; software application and development, which is used to remove image noise, enhance the liver boundary and liver image segmentation. Phase three; template prototype application and measurement, which is used to create template, compare the source image DICOM file with template and restore an image as template. Phase four; compare the liver volume measurement with Gold Standard reading, which is used to determine accuracy and error rate. The framework was represented in three layers, technique layer, image layer and application layer. Enhancing the liver boundary by a scale-specific gradient magnitude filter and Gaussian filter. Segmentation by hybrid-based framework method using three algorithms, fast marching, Geodesic active contour and level set. The study also discussed the issues and challenges in measuring soft organs, which was found during the investigation stage of this research. Other researches which were completed in the field of medical imaging, will also be discussed in the keynote presentation. Mathematical modelling was used widely during all research in medical imaging.



ABSTRAK PENGUCAPTAMA



Robust Statistics: Dealing with Outliers for Better Inferences

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In statistical data analysis, there is only one type of outlier, but in a regression problem, extra care should be taken because in this situation, there are several versions of outliers exist such as residual outliers, vertical outliers (outliers in Y) and high leverage points (HLPs). However, many do not realize that HLPs, those observations that fall far from the majority of the explanatory variables are the most harmful observations because they are mainly responsible for misleading conclusion about the fitting of a regression model, causing multicollinearity problems, masking and/or swamping of outliers, etc. The Ordinary Least Squares (OLS) method is the most popular technique in statistics and is often used to estimate the parameters of a model because of tradition and ease of computation. The OLS provides efficient and unbiased estimates of the parameters when all the underlying assumptions are satisfied. Nonetheless, there is evidence that the OLS estimator suffers a huge set back in the presence of outliers. In fact, outliers have an adverse effect on computed values of various classical estimates, which lead to inaccurate prediction and invalid inferential statements. In this presentation, we will show the effect of outliers on some statistical methods and then focus on the discussion about High leverage collinearity influential observations (HLCIO). Many do not aware that HLCIOs are those high leverage points that can change the multicollinearity pattern of a data. They are referred as high leverage collinearity-enhancing or high leverage collinearity-reducing observations. By correctly identifying those observations, may help statistics practitioners finding the correct remedy to these problems.



PENGHARGAAN

Pihak penganjur Simposium Kebangsaan Sains Matematik ke-26 mengucapkan setinggi penghargaan dan ucapan terima kasih kepada pihak berikut di atas sumbangan ikhlas dalam menjayakan symposium ini:



Sabah Tourism Board

