



# International Research Symposium on Pure and Applied Sciences, 2017

Faculty of Science, University of Kelaniya, Sri Lanka

## Physical Sciences – Presentation Schedule - Session 1A

Venue: Room B1 – 212, Faculty of Science

Session Chair: Prof. D. D. S. Kulatunga

Plenary Speech	Time	Plenary Speech Title and Author
	1100-1115	<b>Estimation of parameters in mathematical and statistical models</b> Prof P. A. Jayantha

Abstract No	Time	Title and Author
PO-01	1120-1135	<b>On sum formulas for Mordell - Tornheim zeta values</b> M. Pallewatta and M. Kaneko
PO-02	1135-1150	<b>Factors that affect labour induction and its successfulness of pregnancies in Sri Lanka</b> J. R. N. A. Gunawardana and S. S. N. Perera
PO-03	1150-1205	<b>Factors associated with low birth weight babies in Jaffna, Sri Lanka</b> D. J. Nimantha and N. Varathan
PO-04	1205-1220	<b>Survey on usage of university main library by undergraduates of Faculty of Science, University of Kelaniya</b> L. B. U. Sandamali, G. L. I. Dhananjani, M. A. S. N. Manchanayake, M. S. H. Perera, P. A. L. Madhushika, P. G. Y. Jayasanka, E. C. D. Edirisinghe, R. A. N. M. Premathilaka, M. O. S. Rajapaksha, A. P. D. S. Senewirathne, A.M.C.H. Attanayake
PO-05	1220-1235	<b>Study on the selection of mobile service providers: Special reference to the students at Faculty of Science, University of Kelaniya</b> D. A. R. C. Dassanayake, H. N. A. M. Wijayawardhana, L. M. Premathilaka, S. A. K. B. Senarath, W. M. D. D. Weerasekara, K. H. K. D. S. Thilakarathne, H. R. Goonetilleke, B. H. S. Sandaruwan, W. T. D. Winisinghe, J. L. S. M. Kumara and A. M. C. H. Attanayake
PO-06	1235-1250	<b>A class of s-step non-linear iteration scheme based on projection method for s-stage Runge-Kutta method</b> S. Kajanthan and R. Vigneswaran
PO-07	1250-1305	<b>Factors affecting to the output efficiency of a production department: A case study in Sri Lankan apparel industry</b> M. W. A. Erandi and D. D. M. Jayasundara
<i>1305 - 1400: Lunch</i>		



## International Research Symposium on Pure and Applied Sciences, 2017

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### Physical Sciences – Presentation Schedule - Session 1B

Venue: B1 334/2, Seminar Room – Department of Physics

Session Chair: Dr. R. C. L. de Silva

Abstract No	Time	Title and Author(s)
PO-08	1120-1135	<b>Enhancement of the degradation of vulcanized natural rubber by natural fatty oils</b> C. K. Ruhunage and C. K. Jayasuriya
PO-09	1135-1150	<b>Reinforcement of natural rubber using carbon black / mineral hybrid filler</b> W. M .P. G. S. V. Wanasinghe and C. K. Jayasuriya
PO-10	1150-1205	<b>Graphite oxide /TiO<sub>2</sub> advanced hybrid material using Sri Lankan graphite: Synthesis and characterization</b> W. A. P. J. Premaratne and K. D. G. Fernando
PO-11	1205-1220	<b>Assessment of polycyclic aromatic hydrocarbons and heavy metals in the vicinity of an oil refinery in Sri Lanka using moss as a bioindicator</b> L. P. T. Nirmani and M. P. Deeyamulla
PO-12	1220-1235	<b>Evaluation of solution parameters for CdCl<sub>2</sub> solutions to be used in post-deposition treatments of CdTe thin films in CdS/CdTe solar cells</b> H. Y. R. Atapattu, D. S. M. De Silva and K. A. S. Pathiratne
PO-13	1235-1250	<b>Development and application of rice-straw biochar for removal of selected heavy metals (Pb, Cd and Cr) in contaminated paddy soil</b> K. P. C. Irosha and D. S. M. De Silva
<i>1305 - 1400: Lunch</i>		

# International Research Symposium on Pure and Applied Sciences, 2017



Faculty of Science, University of Kelaniya, Sri Lanka

## Physical Sciences – Presentation Schedule - Session 2A

Venue: Room B1 – 212, Faculty of Science

Session Chair: Prof. R .P. Wijesundara

Abstract No	Time	Title and Author(s)
PO-14	1400-1415	<b>A study on the convergence of <math>\sum_{n=0}^{\infty} a_n</math> ; <math>a_n = \frac{1}{n + \sum_{k=0}^{n-1} a_k}</math> in terms of the convergence of <math>\sum_{n=0}^{\infty} a_n</math></b> M.A.U. Mampitiya, N.G.A. Karunathilake and D. K. Mallawa Arachchi
PO-15	1415-1430	<b>Economic determinants of suicides in Sri Lanka over the period 1975 – 2015</b> R. P. D. C. S. Devindi and D. D. S. Kulatunga
PO-16	1430-1445	<b>A new cosmological model including inflation, deceleration, acceleration and deceleration again</b> P. V. N. M. C. Perera and K. D. W. J. Katugampala
PO-17	1445-1500	<b>Thin shell model for Majumdar Papapetrou spacetimes</b> N. I. Dilini and N. A. S. N. Wimaladharm
PO-18	1500-1515	<b>A mathematical model for a lubricant approximation of the wet thin tear film</b> G. P. Ranathunga and N. G. A. Karunathilake
PO-19	1515-1530	<b>Approximate analytical solution to the time-fractional nonlinear Schrodinger equation through the Sumudu decomposition method</b> T. Mathanaranjan and K. Himalini
PO-20	1530-1545	<b>Modeling Non-Isothermal wire-coating from a bath using Giesekus fluid</b> N. G. A. Karunathilake, S. Panda, D. K. Mallawaarachchi, G. S. Wijesiri and W. T. P. Hansameenu
PO-21	1545-1600	<b>Polarizability of a metallic nano-cylinder: Local random-phase approximation (LRPA)</b> A. U. Asela and P. S. Hewageegana
<i>1600-1630: Tea and Poster Session</i>		

# International Research Symposium on Pure and Applied Sciences, 2017



Faculty of Science, University of Kelaniya, Sri Lanka

## Physical Sciences – Presentation Schedule - Session 2B

Venue: B1 334/2, Seminar Room - Department of Physics

Session Chair: Dr. M. P. Deeyamulla

Abstract No	Time	Title and Author(s)
*PO-22	1400-1415	<b>Synthesis of metal complex dyes using resorcinol based diazoic compounds and evaluation of their leather dyeability</b> M. A. Qamar, A. Hussain, M. Atif and S. Ali
*PO-23	1415-1430	<b>Synthesis of Pincer Type Mercury(II)-N-Heterocyclic Carbene System With Hg(II)-AreneC-H Close Interaction and Variable Temperature Study</b> M. A. Iqbal and R. A. Haque
*PO-24	1430-1445	<b>Chirped pulse microwave spectroscopy in pulsed uniform supersonic flows: a tool for molecular reaction dynamics</b> N. M. Ariyasingha, C. Abeysekera, L. N. Zack, J. M. Oldham, K. Prozument, B. Joalland, G. B. Park, R. W. Field, I. Sims and A. G. Suits
*PO-25	1445-1500	<b>Phase programmed nanofabrication: Effect of organophosphite reactivity on the evolution of nickel phosphide nanocrystals</b> H. P. Andaraarachchi and J. Vela
*PO-26	1500-1515	<b>Intrusion of Cd, As, Cr, Pb &amp; Hg into selected rice varieties (<i>Oryza sativa</i> L.) in relation to their status in two different agricultural management systems</b> N. M. C. M. Navarathna, K. A. S. Pathiratne, and D. S. M. de Silva
<i>1600-1630: Tea and Poster Session</i>		

\*Skype presentation

# International Research Symposium on Pure and Applied Sciences, 2017



Faculty of Science, University of Kelaniya, Sri Lanka

## Physical Sciences – Presentation Schedule - Session 3A

Venue: Room B1 – 212, Faculty of Science

Session Chair: Prof. P. S. Hewageegana

Abstract No	Time	Title and Author(s)
PO-27	1630-1645	<b>Analysis for maximum energy transfer from existing DC-to-DC converter topologies</b> N. W. H. G. B. Nagahapitiya and N. W. K. Jayatissa
PO-28	1645-1700	<b>Thermal desalination process - Design perspectives</b> N. W. K. Jayatissa
PO-29	1700-1715	<b>Black holes as boson stars</b> K. D. W. J. Katugampala and L. N. K. de Silva
PO-30	1715-1730	<b>Optimization of growth parameters of photoactive Cu<sub>2</sub>ZnSnS<sub>4</sub></b> W. T. R. S. Fernando, K. M. D. C. Jayathilaka, R. P. Wijesundera and W. Siripala
PO-31	1730-1745	<b>Investigation of electrically insulating and thermally conductive materials for a Peltier module with n-Cu<sub>2</sub>O and p-Cu<sub>2</sub>O electrodeposited semiconductors</b> G. K. U. P. Gajanayake, U. K. Abeywarna and L. B. D. R. P. Wijesundera
PO-32	1745-1800	<b>Photoelectrolysis of water using electrodeposited Cu<sub>2</sub>O electrodes</b> A. G. T. De Silva, K. M. D. C. Jayathilaka, R. P. Wijesundera and W. Siripala
PO-33	1800-1815	<b>Fabrication of Cu<sub>2</sub>O homojunction thin films for photovoltaic applications</b> F. S. B. Kafi, K.M.D.C. Jayathilaka, R. P. Wijesundera and W. Siripala