



IPSL - Newsletter

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The News Letter of the Institute of Physics, Sri Lanka

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INSTITUTE OF PHYSICS, SRI LANKA (IPSL)

Vidya Mandiraya, 120/10, Wijerama Mawatha, Colombo 7, Sri Lanka.

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Physics and Astronomy Olympiad Awarding Ceremony - 2017



The IPSL Olympiad Awards Ceremony – 2017 was held on the 25th of November 2017 at New Arts Theatre (NAT), University of Colombo. The Chief Guest of this annual event was Professor (Mrs.) Indra J. Dayawansa, Retired Professor of the Department of Electronic & Telecommunication Engineering, University of Moratuwa.

59 Gold medals, 88 Silver medals, 185 Bronze medals & 160 Merit awards were awarded for students who had excelled in the 13th Sri Lankan Physics Olympiad Competition, 11th Sri Lankan Astronomy and Astrophysics Olympiad Competition, 7th Sri Lankan Junior Astronomy Olympiad Competition and 2nd Sri Lankan Junior Astronomy Olympiad Competition.



The Best Undergraduate Physics Research Project Award (BUPRPA) for 2017 was awarded to Mr. A U Asela.

Summary report of Astronomy Olympiad Competitions was presented by Prof. Chandana Jayaratne, the National Coordinator and Dr. R V Coorey presented the summary report of the Physics Olympiad Competitions for the National Coordinator of Physics Olympiad competitions. Officials of Bank Of Ceylon were been offered with gratitude for being the sponsor by the Prof. H H Sumathipala,

36th Annual General Meeting

The 36rd Annual General Meeting of the Institute of Physics Sri Lanka was held on 26th March, 2016 at the Board Room of Faculty of Science in the University of Kelaniya. New office bearers and the members of the Council were unanimously elected for the year 2015/2016.

Prof. L B D R P Wijesundara was elected as the President. He thanked all the council members for extending their fullest support in all the activities conducted by the Institute of Physics Sri Lanka. He appreciated the dedicated work of Olympiad Coordinators to uplift the image of IPSL in the society. Prof. Wijesundara further thanked the two joint secretaries and the treasurer for their untiring services.

At last the president sought dedicated support from the new council members to carryout the IPSL activities forward.

Papers Presented at the 33rd Technical session

The 33rd Technical Sessions of the Institute of Physics, Sri Lanka was held on the 26th of March, 2017 at the board room, Faculty of Science, University of Kelaniya. eight papers were presented within to sessions. Prof. S D R Kalingamudali chaired the Session-I from 0830h to 1010h and Prof. V P S Perera chaired the Session-II from 1030h to 1130h.

List of papers presented

1. Natural Pigment Extracted from Bracts of Banana Flower for Dye Sensitized Solar Cells
G.C. Wickramasinghe and V.P.S. Perera
2. Preliminary Study to Use SiO₂ Extracted from Rice Husk in Semiconductor Nano Composites for Solar Cell Applications
Classification of Rice Grains Using Neural Networks
N.F. Ajward, G.C. Wickramasinghe, J.C.N. Rajendra and V.P.S. Perera
3. Growth of CuZnS thin films for PV applications
W.T.R.S.Fernando, K.M.D.C. Jayathilekea, R. P. Wijesundera and W. Siripala
4. Study of dielectric properties of indigenous oils as a possible alternative liquid for mineral oils
K.A.M. Jeewanthi, R.P. Wijesundara and H.H. Sumathipala
5. An analysis of the γ -ray and X-ray lightcurves from the Blazar 1ES 1959+650
M.V.Y. Herath, K.P.S.C. Jayaratne
6. Simulation of water permeation through carbon nanotubes under induced electric potential gradient
A.P. Wettasinghe and W.A.M. Madhavi
7. Synthesis and characterization of Na_xMnO₂ as a cathode material for Sodium-ion rechargeable Batteries
R.R.D.V. Rathnayake, V.P.S. Perera, C.H. Manathunga
8. Preparation of Graphene / Titanium Dioxide Nano Composites for Supercapacitors
R.P.J. Niranjana, P.U.I. Samarawickrama, H.S.I. Fernando, D.D.N.B. Daya, I.R.M. Kottegoda

Presidential Address was made By Prof. L. B. D. R. Wijesundara from 1130h—1230h on the same day with

New Council



Institute of Physics - Sri Lanka Council 2017 / 2018



Seated Row (L-R) : Dr. A. Wanninayake (Joint Secretary), Mr. G.H. Asoka (Co-Editor), Dr. (Mrs) U.K. Abeyswama (Asst. Treasurer), Prof. H.H. Sumathipala (Vice President), Professor P. A. A. Perera (President), Prof. L.B.D.R.P. Wijesundera (Immediate Past President), Prof. V.P.S. Perera (Vice President), Mr. N.W.K. Jayatissa (Treasurer), Dr. (Ms) H.O. Wijewardane (Co-Editor), Dr. N.G.S. Shantha (Joint Secretary)
 Standing 1st Row (L-R) : Prof. K.D. Jayasuriya (Committee Member), Prof. S.R.D. Kaligamudali (Committee Member), Prof. K.P.S.C. Jayaratne (Co-Opted Committee Member), Dr. S. R. D. Rosa (Co-Opted Committee Member), Dr. R.C.L. De Silva (Committee Member), Prof. D.D.N.B. Daya (Committee Member), Mr. S.G. Punchihewa (Committee Member)

Guest Lectures

1. An Astronomy Lecture by Indian astronomer Prof. Hari Om Vats on “Space Science for Sustainable Development” was a collaborated activity with section E1 of SLAAS and Astronomy and Space Science Unit of the University of Colombo. Prof. Hari om Vats explained the theories and the areas of research in space technology and was keen to build a link between India and Sri Lanka for collaborative research. The guest lecture held on May 03, 2017 at the New Physics Lecture Theatre (NPLT), Department of Physics, University of Colombo.
2. Prof AS Karunananda, Senior Professor at the University Moratuwa, delivered a lecture on “How to do Research” on 25th May 2017 at Faculty Boardroom. Faculty of Science, University of Kelaniya. (This event was organized in collaboration with the Section E1 of SLAAS)
3. A Geust Lecture titled “Messages that Astrophysical Gamma Rays Bring to us” was delivered by Dr. Anushka Udara Abeysekara, Assistant Research Professor, Department of Physics & Astronomy, University of Utah, USA, on May 29, 2017 at the Department of Physics, University of Colombo. (This event was organized in collaboration with the Section E1 of SLAAS)
4. A lecture on “Electron Microscopy-An Introduction” was delivered by Prof. Manjunath Patabi, Professor and Chairman at the Department of Materials Science, Faculty of Science & Technology, Mangalore University, India on 27th October 2017 at the Faculty Boardroom. Faculty of Science, University of Kelaniya.
5. Prof. A. G. Unil Perera, Regents’ Professor of Physics, Georgia State University, Atlanta, USA, delivered a lecture on “Infrared Detectors and applications for advancing Safe & Healthy Living”

Mailvaganam Memorial Oration — 2017



The Professor A.W. Mailvaganam Memorial Oration 2017 was delivered by Prof. (Mrs.) Indra J. Dayawansa, Retired Professor of Department of Electronic & Telecommunication Engineering, University of Moratuwa, titled “Physics for Locomotion of Selected animals” at 5.30pm on the 25th November 2017 at the New Physics Lecture Thea-



Astronomy and Astrophysics Olympiad Competition

A total of 423 and 948 students participated for the 11th Sri Lankan Astronomy and Astrophysics Olympiad competition, and the 7th Sri Lankan Junior Astronomy Olympiad competition respectively. A team of five students excelled in the national competition selected to participate for the 12th International Olympiad on Astronomy and Astrophysics competition. Meanwhile maximum of three students those who excelled at the 7th Sri Lankan Junior Astronomy Olympiad competition (for grades 6-9 students) will participate at the 23rd International Astronomy Olympiad (IAO) scheduled

Participating for the International Olympiad on Astronomy and Astrophysics (IOAA)

to be held around September, 2018.

Following best three students were selected, based on the results of the 10th Sri Lankan Astronomy and Astrophysics Olympiad competition, and sent for the participation at the 22nd International Astronomy Olympiad (IOA) which was held from 27th October to 4th November 2017 in Weihei, China.

S S Wickramathilake, P P Abesing Wijenayaka, N D Hasith Nethmal.

Prof. K P S Chandana Jayaratne participated as the team leader and national coordinator to this Olympiad. N D Hesith Nethmal received the prize for the “best result among representatives of new participating countries” at this Olympiad.

The following five students represented the Sri Lankan team at the 11th International Olympiad on Astronomy and Astrophysics (IOAA-11) held in Phuket, Thailand from 12th – 21st November 2017.

N. A. Gallage (Maliyadewa College, Kurunegala), S. S. Somabandu, Nalanda College, Colombo 10), W. K. D. D. Senuruk (Nalanda College, Colombo 10), P. U. Jayasekera (Richmond College, Galle), D. D. N. N. A Jayamaha (De Mazenod College, Kandana).

The team leaders and observers participated are Prof. K. P. S. Chandana Jayaratne (Leader, University of Colombo), Dr. H. H. E. Jayaweera (Leader, University of Colombo), Mr. Janaka Adassuriya (Observer, Arthur C Clarke Institute for Modern Technologies), Dr. R. C. L. De Silva (Observer,

Participation in International Physics Olympiad (2017)

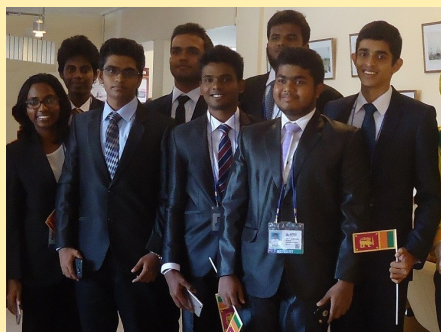
A total of 538 students registered for the 13th Sri Lankan Physics Olympiad Competition. Based on the results of this competition, eight students have been selected for the participation in the 19th Asian Physics Olympiad Competition that will be held in Vietnam, and five students will be participating in the 49th International Physics Olympiad Competition in Lisbon, Portugal in 2018.

Following students participated in the 18th Asian Physics Olympiad Competition held in Yakutsk, Russia from May 01 to 09, 2017. These students were accompanied by the Group Leader Dr. R. V. Coorey, University of Colombo.

M. A. Mohamed Afham, K. D. M. Amaya Dharmasiri, U. G. Chathura Jayasankha, R. G. Nisal Punsara, M. B. S. Dimal Thanuka, A. K. A. Randula, P. G. S. Chathuranga Bandara, K. H. M. T. M. Sandabandara Samarakoon.

Following five students were selected, based on their performance in the Sri Lankan Physics Olympiad Examination, to participate in the 48th international Physics Olympiad competition held in Indonesia from 16-24, July, 2017 they have won the medals and awards as indicated. They were accompanied by Dr. R. V. Coorey of the Department of Physics, University of Colombo, who functioned as the national representative and the team leader.

K. D. M. Amaya Dharmasiri - BRONZE, U. G. Chathura Jayasankha, A. K. A. Randula – HONOURABLE MENTION, K. H. M. T. M. S. Samarakoon - BRONZE, P. G. S. Chathuranga Bandara.



Sri Lankan students participation in the 18th Asian Physics Olympiad, Yakutsk, Russia.

International Junior Science Olympiad-2017 in Arnhem – Nijmegen, the Netherlands, 3rd -12 December 2017.

Sri Lankan Junior Science Olympiad (SLJSO) 2017

290 students participated at the Sri Lankan Junior Olympiad competition in the year 2017. In SLJSO – 2017, 9 students won gold medals, 17 students won silver medals while 22 other students won bronze medals.

The following students participated for the International Junior Science Olympiad-2017 that was held in Arnhem – Nijmegen, The Netherlands during 3rd -12 December 2017.

S.S. Wickramathilake, K.J.Y.N Jayasekara, V.R. Pirapaharan, I.M.N.H. Idirisighe, N.D.H. Nethmal, A.J.M.H. Ranmini.

Sri Lankan students successfully competed with other International Students and except A.J.M. H. Ranmini others were able to win Five Bronze medals. Students from 50 countries around the world participated for this event and many countries were not able secure a single medal. The Sri Lankan team was trained by Prof. H.H. Sumathipala, Department of Physics, National Coordinator of Sri Lankan Junior Science Olympiad and the Country Coordinator for International Junior Science Olympiad, Prof W.U. Chandrasekara, Department of Zoology & Environmental Management and Prof. Kapila Senevirathne, Department of Chemistry, University of Ke-

Olympiad Highlights — 2017



Welcoming the chief guest Prof. (Mrs.) Indra J. Dayawansa by Prof. P. A. A. Perera



Prof. H H Sumathipala the coordinator of Junior Science Olympiad



Prof. (Mrs.) Indra J. Dayawansa, The Chief guest addressing the audience



Prof. Chandana Jayaratne, Country coordinator of Astronomy Olympiad presenting report



Prof. P. A. A. Perera the president IPSL and the Chief Guest Prof. (Mrs.) Indra J. Dayawansa at the awards ceremony



Junior Science Olympiad Awards



Vote of thanks given by Dr. N. G. S. Shantha, Joint Secretary IPSL



Dancing performances

Sri Lanka Journal of Physics

The Volume 17 of the Journal was published on-line on the IPSL web site www.ipsl.lk, and also at the Sri Lankan Journal Online (SLJOL) system. Hard copies of Volume 17 will be printed and distributed to all Libraries in state universities in near future.

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The Annual Get-together & Dinner - 2017

IPSL Member's Annual Get-together and Dinner was held on 25th November 2017 at 07.00 p.m. at Faculty Centre of the University of Colombo. Students of the Cultural Centre of the University of Colombo performed on this occasion.

