Information for Members

Olympiad Award Ceremony
The Olympiad award Ceremony has been scheduled to be held on 20th February 2010.

Awareness Programme in Sound Pollution
An awareness programme on sound pollution will be organized in 2nd week of March 2010.

AGM & Technical Session
The 30th Annual General Meeting & the 26th Technical Sessions of the Institute of Physics Sri Lanka are scheduled to be held on 20th March 2010 at the Conference Room, Department of Physics, University of Colombo.

Program for A.L. teachers
Awareness programmes for Advanced Level teachers about the new Physics syllabus will be organized in Kurunegala and Jaffna.

Membership Update Information
The council of IPSL has decided to update membership information. The soft copy of the form is available in the IPSL website and also a hardcopy is attached to this newsletter. More details are on page 8.

IPSL Website
Updated information is available in the IPSL website http://www.ip-si.org. Please refer the event calendar for future activities.

Mailvaganam Memorial Oration
The Mailvaganam Memorial Oration titled Electron Microscopy in the Study of Materials was delivered by Prof. BSB Karunarathne, Director/PGIS, University of Peradeniya on 11th November 2009 at the Conference Room, Department of Physics, University of Colombo.

Solar Eclipse
A public awareness lecture, a photographic competition and a night astronomical observational camp in Jaffna were conducted by IPSL in conjunction with this rare celestial event. The following photos are the annular solar eclipse seen in Anuradhapura on 15th January, 2010 (taken by Reuters).
The 29th Annual General Meeting of the Institute of Physics Sri Lanka was held on 14th March 2009 at the Conference Room, Department of Physics, University of Colombo. New office bearers and the elected members for the Council were unanimously elected for the year 2009.

Outgoing President of the Institute, Prof. DUJ Sonnadara delivered the presidential address on Fractals in Nature during the technical session. He also thanked the two Joint Secretaries, Treasurer and the Council members for their support in conducting programmes during the years 2007/2008 & 2008/2009 and said that it was a pleasure to serve in the council for the past two years. Addressing the gathering, the newly elected President, Dr. KPSC Jayaratne thanked the outgoing President for his contributions to the institute during the past two years. He also thanked the members for electing him to represent IPSL for the year 2009/2010.

All members observed two minutes silence to respect the late professors Prof. C Dahanayake, Prof. GA Dissanayake and late Mr. U Senaratne who passed away during last year. Prof. C Dahanayake was the founder president of the IPSL, Prof. GA Dissanayake was one of the past presidents and Mr. U Senaratne was one of the past vice presidents of the IPSL. Prof. C Dahanayake also served as a council member and the editor-in-chief of the IPSL Journal until his unexpected demise. Outgoing President of the Institute, Prof. DUJ Sonnadara summarized their great services to the IPSL. Prof. SRD Kalingamudali also appreciated the great service rendered by Prof. C Dahanayake to the nation in general, to the University of Kelaniya, and to the IPSL in particular.

### Papers Presented at the 25th Technical Session

The 25th technical session of the Institute of Physics Sri Lanka was held on the 14th March 2009 at the Conference Room, Department of Physics, University of Colombo.

#### MORNING SESSION

- Effect of roadside vegetation on the reduction of traffic noise level  
  CM Kalansuriya, AS Pannila & DUJ Sonnadara
- Climate change in the hill country of Sri Lanka  
  GJ De Silva & DUJ Sonnadara
- Simulation of lightning discharge: Influence of ground objects and positive streamer growth  
  MDN Perera & DUJ Sonnadara
- Surface colour variation of Papaya fruits with maturity  
  DI Amarasinghe & DUJ Sonnadara
- Effect of measurement of non-destructive firmness on tomato quality and a comparison between non-destructive and destructive methods  
  CL Ranatunga, HHE Jayaweera, SKK Suraweera & TR Ariyaratne
- Thin layer drying of some Sri Lankan paddy varieties under low humid environment  
  AK Shayamali, HHE Jayaweera, SKK Suraweera & TR Ariyaratne
- Comparison of drying of mixed kitchen garbage under different drying condition  
  OK Ranasinghe & TR Ariyaratne

#### AFTERNOON SESSION

- Development and evaluation of a calibration procedure for a 2D accelerometer as a tilt and vibration sensor  
  K Hewawasam, CL Ranatunga, HHE Jayaweera, SKK Suraweera & TR Ariyaratne
- Designing and construction of a mechanical electrode arm for electro-deposition of multi-layer thin films  
  US Kaluarachchi & JKDS Jayanetti
- Use of Cu2O microcrystalline thin film semiconductors for gas sensing  
  PA Praveen Jayantha, LNL Perera, KMDC Jathilaka, JKDS Jayanetti, DP Dissanayaka & WP Siripala
- Introduction of an electrolytic topping up bath to dye-sensitized photo electrochemical solar cell  
  MR Nishantha & VPS Perera
Late Professor Emeritus Charles Dahanayake

Dr. Dahanayake was born on 8th February 1928 at Hiyare of Galle. He had his early education in the village school, then he moved to Vidyaloka Vidyalaya in Galle and then at Ananda College in Colombo in 1945. Dr. Dahanayake entered the University of Ceylon in 1947 to follow the Special Degree Course in Mathematics. He won the Muncherji Framji Khan Prize at the end of his first year at the University and got permission to complete the special degree in three years. By that time he was fond of Physics and to the disappointment of the Professor of Mathematics, he moved to the Department of Physics to follow the Special Degree Course in Physics. He graduated with a First Class (Honors) in Physics in 1951.

Dr. Dahanayake joined the Department of Physics of the University of Ceylon, Colombo in 1951 as an Assistant Lecturer. He then went to the United Kingdom in 1953 on a Ceylon University Government Scholarship to do his graduate studies at the University of Bristol. At Bristol he carried out research work on Cosmic Rays under Professor CF Powell, FRS and Nobel Laureate. In 1956, he obtained his PhD in High Energy Particle Physics.

Dr. Dahanayake returned to the University of Ceylon, Colombo soon after he earned his PhD and continued his research work on Cosmic Radiation. He was promoted to the Lecturer Grade II in 1956 and to the Lecturer Grade I in 1961. In 1962, he went to the University of Rochester, USA on a Fulbright Post-Doctoral Research fellowship to carry out research on Primary Cosmic Rays during his sabbatical leave period. In the period July 1963 to September 1967 he worked at the University of Ceylon, Peradeniya as a Senior Lecturer and continued his research on Fundamental Particles.

Dr. Dahanayake came to the Vidyalankara University (now the University of Kelaniya) in September 1967 as the founder Professor of Physics, in its newly inaugurated Faculty of Science. He was also the founder Dean of Faculty of Science, University of Kelaniya and the founder Head of the Department of Physics. One of his major contributions to the University of Kelaniya, and in particular to the Faculty of Science, is the effort he put in as Dean of Science in getting the Faculty on to a sound footing. Dr. Dahanayake nursed the Faculty from its infancy to maturity.

Dr. Dahanayake retired from the University of Kelaniya on 31st July 1993. He then continued as the Professor of Physics on contract basis till April 1996. He had the distinction of having served 45 years in Sri Lankan Universities, of which 29 years at the University of Kelaniya.

Late Professor Emeritus George Alexander Dissanaike

Dr. Dissanaike was born in Colombo on 23rd June 1927. After his primary and secondary education at Richmond College, Galle and St. Peter’s College, Colombo he entered the University of Colombo in 1945. He graduated with a BSc Special Degree in Physics in 1949 and joined the staff of the University of Ceylon (Colombo) in 1949. After getting the government University Science scholarship award for overseas postgraduate studies he went to Cambridge University in 1950 and obtained his PhD in 1953. He carried out his research in Experimental Nuclear Physics at the Cavendish Laboratory, Cambridge. In 1962, he was transferred to the University of Ceylon (Peradeniya). His research and publications covered Nuclear Physics and Nuclear Energy, Pollution Studies, Physics in Biological and Medical Research, Science Education etc.


Late Mr. U Senarathne

Mr. Senarathne was born in 26th April 1943. He graduated with a BSc Special Degree in Physics from the University of Ceylon (Colombo) in 1970. He had obtained MSc in Instrument Technology from Loughborough University of Technology in the UK in 1977.

In 1973, he joined the Weights and Measures Division of the Price Control Department as an Examiner of Standards and later as an Assistant Commissioner attached to the Measurement Standard and Services Division of the Department of Internal Trade. When Measurement Units, Standards & Services created in 1977, he was appointed as the Deputy Director and later he was promoted as the Director of the same in 2002.

Mr. Senarathne had undergone specialized training in metrology, measurements standards at following institutes: National Research Laboratory of Metrology in Japan, 1974; National Measurement Laboratory in Australia, 1982; National Research Laboratory of Metrology in Japan, 1974; National Physical Laboratory in India, 1985; Deutsche Academic For Metrology in Germany, 1992; Korea Research Institute of Standards & Science in South Korea, 1992 etc. He had participated a lot of international and regional programmes on metrology. He had more than 30 years of experience at management level of scientific metrology, industrial metrology, legal metrology together with precision scientific work involved in establishing and maintaining the metrological basis of the management systems in Sri Lanka.
The International Physics Olympiad (IPhO) competition has been held in different countries annually since 1967. The Asian Physics Olympiad (APhO) competition commenced in the year 2000. Participation in the Olympiads gives opportunities to young bright students from all over the world to share experience and face challenges in solving Physics problems.

Sri Lankan Physics Olympiad is an annual competition conducted by the IPSL with the intention of promoting Physics among A.L. students. Usually it has been conducted at local universities island-wide since 2005. The competition is open to the students of both Physical and Biological Science streams. Application forms and further details related to the competitions are now available on the web site of IPSL. The best students will be awarded medals and certificates from IPSL. The best eight students will be selected for further training and participation in the International Olympiad competitions, IPhO and APhO.

For the 5th Sri Lankan Physics Olympiad competition held in 2009 a total of 918 participated. The 40th IPhO was held in Mexico in July 2009.

Physics Olympiad

Astronomy and Astrophysics Olympiad

International Olympiad on Astronomy and Astrophysics (IOAA) competition has been held in different countries since 2007, first in Thailand, second in Indonesia. The third IOAA competition was held in Iran in October 2009. The goals of IOAA are to promote interests and education on Astronomy and Astrophysics among the students.

National Astronomy and Astrophysics Olympiad competition is conducted by IPSL annually to select the outstanding students to participate IOOA annual event. The five best students from the national competition will be selected and trained to represent Sri Lanka in the IOOA.

The 3rd National Astronomy and Astrophysics Olympiad competition was held in July 2009 with 71 participants. Five best students represented Sri Lanka in the 3rd IOAA in Iran in October 2009.

Junior Science Olympiad

In 2008, IPSL sent a team of six students to participate in the 5th International Junior Science Olympiad Competition held in Gyeongnam, Korea in December 2008. Two of them won Bronze medals.

The 2nd island-wide competition to promote Science among O.L. students, "The Sri Lankan Junior Science Olympiad Competition", was held on 15th August, 2009 at the Universities of Colombo, Peradeniya, Ruhuna, Jaffna, Eastern and Uva-Wellas. A total of 1045 students participated. IPSL awarded 9 Gold, 15 Silver and 20 Bronze medals. The six best students were selected and participated in the 6th International Junior Science Olympiad Competition held in Azerbaijan in December 2009.
Olympiad Past Achievements at International Level

36th International Physics Olympiad, Spain, 2005 – Two Honorable Mentions
The awardees were Mr. Nuwan Ganganath of Maliyadeva College, Kurunegala and Mr. Gayan Jayasumana of Kalutara Vidyalaya. In addition, Mr. Nuwan Ganganath was able to win the special prize awarded to the best student from the newly participated countries in the last three years.

37th International Physics Olympiad, Singapore, 2006 – One Honorable Mention
The awardee was Mr. Tharindu Rukshan Bandaragoda of Richmond College, Galle.

8th Asian Physics Olympiad, China, 2007 - Bronze Medal
The first ever medal for Physics won by a Sri Lankan student Mr. Buddhi Wijeratna of Maliyadeva College, Kurunegala. Furthermore, he was the recipient of the special prize awarded to the best student among the newcomers.

1st International Olympiad on Astronomy and Astrophysics, Thailand, 2007 – Three Honorable Mentions
The awardees were Mr. BDS Muthusinghe & Mr. GDA Aryanwansa of Nalanda College, Colombo and Mr. CM Rathnayake of Dhammapala College, Kandy.

9th Asian Physics Olympiad, Mongolia, 2008 - One Honorable Mention
The awardee was Mr. Kirthevasan Kandasamy of St. Thomas’ College, Mount Lavinia.

39th International Physics Olympiad, Vietnam, 2008 – Bronze Medal & Honorable Mention
The awardees were Mr. Kirthevasan Kandasamy of St. Thomas’ College, Mount Lavinia (Bronze medal) and Nayana Sumanga Rajapaksha of Ananda College, Colombo (Honorable mention).

2nd International Olympiad on Astronomy and Astrophysics, Indonesia, 2008 – One Honorable Mention
The awardee was Mr. Yasith Mathangasinghe of Dharmapala College, Kandy.

5th International Junior Science Olympiad, Korea, 2008 – Two Bronze Medals
The awardees were Mr. MP Pathegama of Rahula College, Matara and Mr. PC Yasawardene of Royal College, Colombo.

Membership Update Information

Annual membership fees:
Fellow - Rs. 600
Member - Rs. 400
Graduate - Rs. 300
Licentiate - Rs. 250
Associate - Rs. 200
Student - Rs. 100

An application processing fee of Rs. 250.00 will be charged from all applicants, except from student members.

Life members:
To be eligible to apply for a life membership it requires 10 years of membership in that category. However active members may require only 5 years membership.
**Sri Lankan Journal of Physics**

**Call for papers**

Papers are now accepted for issue 1 of volume 11 scheduled to be published in the year 2010. The deadlines to accept manuscripts is 31st March, 2010. The guidelines and instructions for submitting manuscripts can be found in IPSL website and also in the inside back cover of the journal.

**Email:** editor@ip-sl.org

**Web:** [http://www.ip-sl.org](http://www.ip-sl.org)

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### Event Calendar 2009/2010

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### Important dates:

- **Sri Lankan J. of Physics**
  - Deadline for submission of manuscripts:
    - Vol. 11, Issue 1—31st March 2010
  - Olympiad Award Ceremony
    - 20th February 2010
  - Annual General Meeting & IPSL Technical Sessions
    - 20th March 2010

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