CERN to assist Sri Lanka to develop Physics teaching and scientific collaboration

Mahesh Samarasekara
Media Secretary

The Minister of Science, Technology and Research, Sjuil Premajaythra has announced that a Steering Committee will be established in Sri Lanka to develop physics education at the high school and university levels and to strengthen cooperation with the European Organization for Nuclear Research (CERN). The Committee would comprise of a core group drawn from universities and relevant agencies, such as the Ministry of Science, Technology and Research, COSTI, NSF, etc.

The Minister made this observation when he addressed an event on Wednesday 3 May 2017 in Geneva, to mark the visit to CERN by the first scientific delegation from Sri Lanka comprising 5 Sri Lankan physicists representing universities of Sri Lanka from 3-5 May 2017. Sri Lankan Permanent Representative to the UN in Geneva and Consul General to Switzerland, Ravindra Akulshinha and officials of the Mission who initiated the process were associated in the event.

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SLAB to mark World Accreditation Day for 9th time

The Sri Lanka Accreditation Board for Conformity Assessment (SLAB) has made the necessary arrangements to mark the 9th World Accreditation Day with much pomp and glamour on June 14. The World Accreditation Day is a global initiative, jointly established by the International Accreditation Forum (IAF) and the International Laboratory Accreditation Cooperation (ILAC) and the SLAB is commemorating the 9th World Accreditation Day this year. The theme this year is “Accreditation: Delivering confidence in construction and the built environment.”

I T E X 2 0 1 7
Sri Lanka bags Gold Medal

The International Invention, Innovation & Technology Exhibition (ITEX) was held from 11 - 13 this month at Kuala Lumpur Convention Centre, Malaysia. Four young inventors got the opportunity of participating in this exhibition with the full sponsorship of the Sri Lanka Inventions Commission (SLIC). At the exhibition, the “Light Stick” invented by Master Thanuka Dilhan Herath won the cup for Best Invention Award - Junior Category and Gold Medal from W H E and F I award of the 1st Institute Inventors and Researchers in Iran for the Best Inventor presented by President of IPIA.

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Save the date!

SLAB Celebrates World Accreditation Day

on 14th June 2017

On Wednesday, June 14, the Sri Lanka Accreditation Board will celebrate World Accreditation Day 2017 and raise awareness of the importance of accreditation. The celebrations include a certificate awarding ceremony and technical seminar on the theme.

5th of June 2017 marks World Accreditation Day as a global initiative, jointly established by the International Accreditation Forum (IAF) and the International Laboratory Accreditation Cooperation (ILAC), to raise awareness of the importance of accreditation. This is the 5th consecutive year, the SLAB is celebrating the World Accreditation Day. Each year, the International Accreditation Forum (IAF) and International Laboratory Accreditation Cooperation (ILAC), which are the apex bodies in the world for accreditation jointly, decide on a common theme.

This year’s theme focuses on delivering confidence in construction and the built environment. In order to explain the use of accredited conformity assessment in the world, the Public Sector Assurance website www.psaassurance.org has been established to showcase different global examples including examples from Sri Lanka where accreditation has been used to support construction and the built environment and implementation of regulations.

As in previous years, the day will be celebrated across the world with the hosting of major national events, seminars, and press and media coverage, to communicate the value of accreditation to those working in the sector including building owners, operators, contractors, manufacturers, designers, architects, and structural engineers. As well as demonstrating how accreditation is used by policy makers, local authorities and regulators to support construction-based regulation, environmental protection, public safety, fraud prevention, public trust and innovation.

Standards and accredited conformity assessment are market-based tools that can be used in the construction sector to cover construction products and materials, building techniques and practices on site health and safety, environmental impact, to even the use of digital technology in smart buildings.

The Construction sector is complex and highly competitive, and provides challenges for companies seeking to improve margins, and reduce cost whilst improving quality and ensuring a safe environment on construction sites. Accreditation supports the construction sector to control risk, help drive efficiency, demonstrate regulatory compliance, and provide supply chain confidence.

The building sector is important for economic development, employment creation and the environment. The volume of construction output is forecast to grow by 85% to €15.5 billion worldwide by 2030. Dramatic change in Sri Lanka is also expected within few years assisted by the initiatives taken by the Ministry of Housing & Construction and Megapolis and Western Development.

The Cabinet of Ministers of Sri Lanka approved SLAB’s proposals for the Accreditation Mandatory in Building Technical Decisions. This year’s theme paves the way for implementation of proposals of Cabinet of Ministers in the Construction industry. Sri Lanka Accreditation Board as the implementing institution, has taken necessary initiatives to implement proposals of Cabinet of Ministers in 08 major sectors namely as Food & Agriculture, Occupational Health & Safety, Constructions, Social care & security, Energy, Environment, Health & Trade & Consumer Protection.

Accreditation can support the Construction Sector to meet its need for smarter, cleaner and safer construction by providing assurance into the safety of the workforce on site, the quality and origin of the construction product and raw materials, the energy efficiency of buildings, the quality of design and architecture, the safe installation of electrical and gas networks, protect environment and the long-term sustainability of buildings.

The picture also highlights the use of conformity assessments for different purposes.

Source: www.ils.com

As shown, results are accomplished in part by requiring services of accredited laboratories, inspection bodies and certification bodies. Specifically, laboratories are used to determine the quality of raw materials and testing of certain parameters at different stages of construction. Safety inspections are carried out on a range of activities associated with raw materials, construction process, and preparation of construction sites, installation & operation of machinery at construction sites, installation of equipment & facilities of buildings after completion of construction and regular maintenance and operation of facilities of completed projects. Certification of Quality Management Systems of Construction provides assurance to regulators and stakeholders that the constructions are done in accordance with defined process and complying with regulatory requirements as well.

As the National Accreditation Authority of Sri Lanka, SLAB Accreditation Board invites all stakeholders to take part in activities organized to celebrate the World Accreditation Day 2017. This National event will commence with inauguration session and Certificate Awarding Ceremony under the patronage of Hon. Susila Nanayakkara, MP, Minister of Science, Technology & Research. Technical seminar on Delivering Confidence in Construction and built environment will be started after the inauguration. The target group for the technical seminar may be construction companies, manufacturers of materials, service providers such as testing calibration laboratories, inspection bodies & certification bodies, energy managers, civil engineers, quantity surveyors, architects, ministries & governmental departments, members associated with chambers, exporters & importers etc. About 200 participants are expected for the seminar.

The following topics will be discussed at this seminar by panel composed of prominent speakers related to the subject of construction, economy, environment and conformity assessments.

- Implementation of National Construction Policy and issues & challenges
- New Concepts in Building Designing
- Environmental Impact & long-term sustainability of construction projects
- Introduction of Green Building Certification Scheme
- How Construction Sector is important for Economic Development in Sri Lanka
- Use of Conformity Assessment Procedures and Accreditation Principles for the improvement of Construction Industry in Sri Lanka

For registration & further details – slabwd2017@gmail.com and www.slab.lk

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SLAB
CERN to assist Sri Lanka to develop Physics teaching and scientific collaboration

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M inister Premadasa noted that as a follow-up to the visit, a Roadmap will be evolved to enhance scientific collaboration in High Energy Physics between the scientific community of Sri Lanka and CERN. This will include enabling Sri Lankan scientists to join the Compact Muon Solenoid (CMS) Experiment and other processes at CERN and thereby to be exposed to cutting-edge technology and research in high energy physics. A delegation from CERN will also visit Sri Lanka later this year to promote the education of Particle Physics in general, among high school students and teachers, undergraduates and scientists.

Welcoming the Minister and the Sri Lankan delegation to CERN, Director of International Relations CERN Chloé Waroquier read the excellent relations between Sri Lanka and CERN, and particularly the interest with which Sri Lanka had engaged with CERN over the past year. She commented on the efforts of Minister Premadasa in nurturing the young students of Sri Lanka, and assured CERN’s continued support to develop scientific education in Sri Lanka at both the High School and University levels.

Ambassador Ravindra Aryanha noted that cooperation between Sri Lanka and the European Organization for Nuclear Research (CERN) was formally initiated in June 2015, following the signing of an ‘Expression of Interest’ (EOI) Agreement between the Director General of CERN, Prof. Rolf-Dieter Heuer and himself. This enabled 2 Sri Lankan undergraduate students to join the CERN Summer Student Programme in 2019, and also for Sri Lankan teachers to apply to participate in the CERN High School Physics Teachers Programme. Dr. Fügler Vass, Senior Advisor of CERN was a special invitee of the Government at the Science and Technology for Society Forum (STS Forum) held in September 2016 in Colombo. Relations between Sri Lanka and CERN were upgraded when in February 2017, Minister Premadasa signed the International Cooperation Agreement concerning Scientific and Technical Cooperation in High Energy Physics with CERN Director for International Relations Charlotte Lindberg Waroquier, and Sri Lanka became the 47th country to sign an ICA with CERN. At the time, Minister Premadasa pledged to send a delegation of physicists to CERN to familiarize themselves with the research work underway and to scope out how the two scientific communities could collaborate effectively. He noted that this year, from among 943 global applicants, which included 25 from Sri Lanka, CERN selected 4 undergraduates who will participate in the 2017 Summer Student Programme next month. As the Chair of the Group of Fifteen (G-15), Sri Lanka has also signed an ‘Expression of Interest’ between CERN and the G-15 which actively seeks opportunities of cooperation, and under which CERN has agreed to host 40 teachers from G-15 countries this year to participate in a CERN Teacher Programme.

The visiting Sri Lankan Physicists’ delegation comprised of Prof. W.G.D. Dhammalinga, Senior Professor in Physics, Dean of the Faculty of Technology, University of Ruhraka, Prof. Udul J. Somawardena, Senior Professor in Physics, University of Colombo, Prof. P. Raviwan, Professor in Physics, University of Jaffna, Prof. S. G. V. Donnall, Professor in Physics, University of Colombo, Dr. (Mrs) M. C. Alvedage, Senior Lecturer, Department of Physics, University of Sri Jayawardanapura, Councilor Sathishka Somarathne and Second Secretary Dini Gunawardena of the Sri Lanka Permanent Mission were also associated in the sessions.

During their stay in Geneva, the Sri Lankan physicists familiarized themselves with the several facilities in CERN, including the CERN Data Centre, the Antiproton Decelerator, the Compact Muon Solenoid (CMS), the Gas Electron Multiplier (GEM) Lab and the S8 Cool Lab for High School students. The physicists also held extensive discussions with the Spokespersons’ team and Project Managers of the CMS facility on future collaboration between the universities in Sri Lanka and the CMS experiments. In addition, the delegation visited the Synchrotron Light and the Large Hadron Collider (LHC) superconducting magnet test hall and the Microcosm and Globe exhibitions.

The programme concluded with a discussion on follow-up action with the participation of the physicists, the officials from Permanent Mission of Sri Lanka led by Ambassador Ravindra Aryanha and the CERN officials led by Prof. Emmanuel Timmermans, Head of Relations with Associate Members and Non-Member States of CERN, Mr. Joel Butler, Spokesperson of CMS, Dr. Anusha Shetha, Senior Particle Physics CMS, Dr. Ana Godinho, Head, Education, Communication and Outreach Group and Dr. Sashank Srinivasan, Section Leader, Teacher and Student Programmes were associated in the discussions.

Sri Lanka bags Gold Medal

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The “Sand Separator” invented by Master Shannugarathnam Kajanan of Kokuvil Hindu Vidyalaya, Jaffna won the Junior Silver Medal and the Honor of Invention cup of World Intellectual Property Organization (WIPO) “Teaching Learning Material for Periodic Table”. The invention was inspired by the periodic table. Agreement has been expressed to activate all clauses of the Basle, Rotterdam and Stockholm International Conventions. The fundamental objective of these conventions is to establish proper management of chemicals and hazardous wastes. It is expected to combat the foundation to a pure future free of poisonous and contaminants. Here, Minister of Science, Technology and Research Sisila Premadasa and his team that participated in an international high-profile official meeting in Geneva, Switzerland on the activation of the Basle, Rotterdam and Stockholm International Conventions.

ITEX 2017

invented by Masters Malukware Anjuth and Master Koneshwar Arumugam of Kumburupiti Tamil Central college won the Senior Silver Medal.
Why an Accreditation Body is required for a country?

What is the role of SLAB in Sri Lanka?

Nanin Rajapaksha, Chairman, Sri Lanka Accreditation Board for Conformity Assessment

Why an Accreditation Body is required for a country?

An Accreditation Body is a body that provides accreditation services to other bodies, such as laboratories, testing and calibration laboratories, and other bodies involved in the provision of testing and calibration services. Accreditation is a process that certifies the competence of an organization to perform testing or calibration services. Accredited bodies are recognized as being competent to perform their services and are therefore able to provide reliable and consistent results. Accreditation is important because it helps to ensure that the results of testing and calibration services are reliable and valid, and that the services are performed in a consistent and standardized manner. Accreditation is also important because it helps to build confidence in the results of testing and calibration services, which is important for the credibility of the bodies that provide the services.

What is the role of SLAB in Sri Lanka?

SLAB (Sri Lanka Accreditation Board) is the national accreditation body of Sri Lanka. It is responsible for providing accreditation services to laboratories in Sri Lanka. SLAB is responsible for ensuring that laboratories in Sri Lanka are competent to perform their services. To achieve this, SLAB provides training, guidance, and support to laboratories in Sri Lanka, and it also performs periodic assessments to verify that laboratories are maintaining their competence.

International recognition of SLAB accreditation

SLAB accreditation is internationally recognized, and laboratories that are accredited by SLAB are recognized as being competent to perform their services in countries around the world. This is important because it helps to ensure that the results of testing and calibration services performed in Sri Lanka are recognized and accepted in other countries.

Quality, food safety, public health, environmental, national security and assurance are key areas

Quality, food safety, public health, environmental, national security and assurance are key areas where accreditation is important. Accreditation helps to ensure that the processes and procedures used in these areas are reliable and consistent, and that the results are valid and valid. Accreditation is therefore important for ensuring that the systems and processes used in these areas are effective and that the results are valid and valid.

The SLAB logo is shown on the page.
The Accreditation scheme for Good Laboratory Practice (GLP) of the Sri Lanka Accreditation Board (SLAB) refers to a quality system of management controls for research & development laboratories. GLP is based on OECD (Organisation for Economic Co-operation and Development) Series on Principles of Good Laboratory Practice and Compliance Monitoring as revised in 1997.

GLP is a managerial concept covering the organizational process and conditions under which laboratory studies are planned, performed, monitored, recorded, archived and reported. GLP principles are required to be followed by test facilities, carrying out studies to be submitted to national authorities for the purposes of assessment of chemicals and other uses relating to the protection of man and the environment.

In the early 70's for United States Food and Drug Administration became aware of cases of poor laboratory practices all over the United States. Examples of some of these poor laboratory practices found were equipment not being calibrated to standard form and therefore giving wrong measurements, incorrect inaccurate accounts of the actual laboratory study, inadequate test systems etc.

In order to overcome these issues, OECD Principles on Good Laboratory Practice were first developed by Expert Group on GLP in 1978. The basis for the work of the Expert Group, which was led by the United States and comprised experts from the following countries and organisations: Australia, Austria, Belgium, Canada, Denmark, France, the Federal Republic of Germany, Greece, Italy, Japan, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, the United States, the Commission of the European Communities, the World Health Organisation and the International Organisation for Standardization.

Complying to OECD guidelines means basically to certify that every step of the analysis is valid or not. The purpose of these Principles of Good Laboratory Practice is to promote the development of quality test data. GLPs have heavy emphasis on data recording, record and specimen retention, traceability may include pharmaceutical products, pesticides.

New Accreditation Scheme for Good Laboratory Practice (GLP)

The young Scientists Forum (YSF) of Sri Lanka hosted by the National Science & Technology Commission (NASTEC) under the Ministry of Science, Technology & Research was established in year 2000 as a result of the idea came out from the world conference on science for the 21st century held in Hungary in 1999. That conference was attended by a team led by Minister of Science & Technology and Chairman of NASTEC. The main objective of the YSF is to provide an opportunity for young scientists in Sri Lanka to voice their opinion on Science & Technology related issues. Science commumity strongly believe that young scientists should lead the development of the society as they are the most energetic group of scientists who are rich in innovative ideas. But how they can perform their role? YSF provides the platform for young scientists in Sri Lanka to voice their opinion on Science & Technology issues both within and outside their respective institutes and thereby actively participate in the decision making process. YSF currently consists of 760 members of young scientists in different disciplines.

Activities of YSF are coordinated by a Steering Committee elected at the YSF annual general meeting. The YSF Steering Committee consists of dynamic and multi-disciplinary experts in science and technology. YSF annually organizes different events which enable young scientists for networking, future collaborations and to enhance their skills. The major annual event conducted by YSF is the YSF Symposium. This national symposium provides an ideal opportunity for Sri Lankian young scientists to share their research outputs and encounters they face. Young scientists in different disciplines such as agriculture, food science, environmental science, engineering, IT, medicine, economics, health sciences, social sciences and biotechnology and molecular biology get valuable opportunity to look for interdisciplinary collaborations and inter disciplinary collaborations. At the YSF symposium, students are awarded with certificates for their research work.
Let's get to know the Night Sky - 02

The largest planet of the solar system, Jupiter (Bhahaspatha), can be observed right overhead in May night sky. This planet can be observed to be larger than other stars and shining brightly in a whist yellow color. Furthermore, as planets do not twinkle like stars, you can easily identify it. This gas giant takes 9 hours and 56 minutes to rotate around its axis.

• It takes about 12 years for Jupiter to complete one orbit of the sun.

Pelican

Saturn being located between the constellations Scorpio and Sagittarius at present, making it more identifiable. The Scorpio Constellation is an easily recognized star pattern located towards the southern hemisphere. You can identify this constellation easily these nights at about 8.00 pm appearing as a slanted letter 'J' or in the shape of a scorpion in the southern sky towards the east.

Enceladus

Leo Constellation
You can also identify the Leo Constellation at present. At about 8.00 pm, six stars in the shape of a sickle, or an obverse question mark slightly to the west and three stars in a triangle a little to the east of those can be observed. When joined together these stars take the form of a lion making it easy for you to recognize the Leo constellation. The brightest star in this constellation is Regulus.

The rings of Saturn can be observed very picturesquely when observed through a telescope.

• Saturn is the second largest planet in the solar system.

• Saturn takes 10 hours and 34 minutes to revolve around its axis.

• Saturn takes about 29 years and 66 months to complete one orbit of the sun.

• There are 62 moons orbiting Saturn. NASA's Cassini spacecraft has discovered that crust of Saturn's moon Enceladus contains water and hydrothermal vents spew water vapor and ice particles from an underground ocean beneath the icy crust of Enceladus.
Medical Laboratory Services assessment contains the diagnosis and assessment of the health of patients. Their services encompass arrangements for requisition, patient preparation, and examination of clinical samples, together with the collection, transportation, storage, processing, and examination of clinical samples, all done with subsequent evaluation and interpretation, reporting, and management.

Today it has been a prevailing need and a frequently discussed issue in the country to improve quality and reliability of test reports issued by the medical and clinical laboratories and to upgrade their services to meet the international standards. Realizing this need in the medical sector, the Sri Lanka Accreditation Board (SLAB) has initiated an accreditation scheme to grant accreditation to medical and clinical laboratories based on the requirements of ISO 15189:2012. SLAB has accredited 17 Medical Laboratories in the country (visit the SLAB website anybody could search for accredited medical laboratories in Sri Lanka) and closely working with the Ministry of Health to upgrade the quality of medical laboratories. A proposal that has also been submitted to introduce a phase programme for the annual registration of medical laboratories by the Public Health Sector Regulatory Council (PHSRC) of the Ministry of Health. By visiting the SLAB website anybody could search for accredited medical laboratories in Sri Lanka.

Accreditation is a key principle for regulators of healthcare services. Accreditation can be used as a tool to support the commissioning or specification of medical laboratory services that are technically competent, safe and reliable, and that continually improve the experience for patients by:

- providing an independent assurance of quality and safety that supports world-class decisions on how to deliver better care and value for patients;
- providing a mechanism for measuring quality improvement;
- supporting consistency in the quality of care; and
- encouraging innovation.

Benefits of SLAB Accreditation

Accreditation is an enabler of quality and a core component of good clinical management. It is patient-focused, impartial, objective, and operates within a peer review model. It provides many benefits such as those detailed below.

For Healthcare Providers:

- To drive the quality of care for patients, whilst delivering efficiency

Medical Laboratory Accreditation

For Patients

Accreditation requires that the laboratory assesses the value and relevance of the testing in relation to the patient’s clinical management. It demonstrates that medical laboratories comply with an international standard, confirming that:

- there is consistency in the quality of care and that this service reflects the stability of the quality of test reports, up-to-date technical methodologies and methodical training;
- that the staff providing the service are competent to undertake the tasks they perform.

Jeewani Karunagama
Assistant Director - Accreditation
SLAB

FULL MEMBER OF ILAC, APLAC, PAC, IAF

ILAC MRA Signatory for Testing (including Calibration and Medical testing) and Inspection

IAF MLA Signatory for System Certification (QMS, EMS, FSMS) and Product Certification

PAC MLA Signatory for GHG validation and verification.