

# 16th Conference of the Science Council of Asia

on

Science for the People: Mobilizing Modern
Technologies for Sustainable Development in Asia

May 30-June 1, 2016

Colombo, Sri Lanka

# Organized by:









#### **Science Council of Asia**

The Science Council of Asia was formed in May 2000 to help the region more actively address the diverse and urgent science-related issues common to Asian countries, including population problems, medical care, food, water, energy, and knowledge of and education in the sciences. It had its origins in the Asian Conference on Scientific Cooperation (ACSC) hosted by the Science Council of Japan in Tokyo from 1993 to 2000 with the aim of promoting cooperation in scientific research among Asian countries. The first SCA conference was held in Bangkok, Thailand, in May 2001.

The annual SCA conference is held on a rotational basis so that each member country/region can actively participate in and contribute to the SCA. The annual conference consists of a biennial General Assembly, a Management Board Meeting, and a Symposium which provides for discussions among scientists, engineers, policymakers, and students from Asia. The sixteenth SCA conference is being held during May 30-June 1, 2016 in Colombo. The President of the SCA for 2014-2016 is Prof.Vijaya Kumar, President of the National Academy of Sciences of Sri Lanka. The National Science Foundation is the other Sri Lankan member of SCA.

### Theme of the 16th SCA Conference

Science for the People: Mobilizing Modern Technologies for the Sustainable Development in Asia

#### **Sub-Themes:**

- 1. Opportunities in mobilizing Biotechnology, Information Technology, Nanotechnology and Renewable Energy Technologies for National Development
- 2. Social Dimensions of these technologies: Challenges faced by Asia in their exploitation, Risks from applying the technologies, Protection and preservation of cultural heritage.
- 3. Climate Change: Mitigation of and Adaptability to the Impact of Climate Change, Sustainable Development for Built Environment, Prevention of Natural Disaster.

The Conference will focus on all areas of emerging technologies, successes in their exploitation for national development and for social welfare and the challenges faced in utilizing them and how they can be overcome. Risks involved in the strategies, their identification and mitigation, the preservation of cultural heritage while introducing the technologies and social issues involved including social accountability in research will also form part of the theme. Climate Change and Prevention of Natural Disaster is another sub-theme of the Conference. Papers are invited in all topics within these broad areas.

Opportunities will be available to make oral presentations or poster presentations

# **Deadlines/Important Dates:**

January 31, 2016: Abstract submission.

February 15, 2016: Notification of acceptance as oral presentation/poster

March 5, 2016: Submission of Revised abstract, if revision required

March 25, 2016: Early Bird registration for Conference

March 30, 2016: Submission of full paper

April 30, 2016: Submission of presentation materials for oral presentation

#### Venue:

#### Hotel Galadari

64, Lotus Road, Colombo 1, Sri Lanka, Phone: +94-112-544544

http://www.galadarihotel.lk

Special Conference Rates: USD 120 (Single)/130 (Double) per night, Bed/Breakfast

# **Registration:**

Early Bird Registration Participant USD 120 (includes conference materials, conference bag, lunches/teas on conference days, invitation for conference dinner), Accompanying Person: USD 80 (includes bag, lunches/tea on conference days, invitation for the conference dinner and participation in accompanying person programme)

Please register for the conference by sending the attached form or an email with the required information on or before March 25, 2016 to <a href="mailto:sca16srilanka@gmail.com">sca16srilanka@gmail.com</a>. The registration fee may be sent to the account of NASSL (Acct. No. 73178508) at Bank of Ceylon, Independence Square Branch, Colombo 7, Sri Lanka (SWIFT code: BCEYLKLX) or paid on arrival at the Conference.

Registration after March 25, 2016: USD 150 (Participant), USD 100 (Accompanying Person)

#### **Abstracts**

Abstracts in Times New Roman Font should fit into a single A4 page keeping 1" margins. A model Abstract is attached and a template is provided in the conference website. Please identify the particular conference sub-theme into which the abstract fits and include a one page CV of the presenter with the abstract.

Full papers should be less than 8 pages and in the same format.

Abstracts and Full papers should be sent to **sca16srilanka@gmail.com**.

#### **Financial Assistance**

The SCA regrets it is unable to provide financial or travel assistance to participants.

#### **Second Circular**

The second circular containing logistic information, information on Sri Lanka, the basic programme, post-conference tours will be circulated to those expressing interest by early January 2016.

#### **Contact:**

Conference email: <a href="mailto:sca16srilanka@gmail.com">sca16srilanka@gmail.com</a>

Other contacts: SCA secretariat, Japan, e-mail: <a href="mailto:sca@cao.go.jp">sca@cao.go.jp</a>; Phone: +81-3-3403-1949; NASSL Secretariat (Sriyani), email: <a href="mailto:nassl@sltnet.lk">nassl@sltnet.lk</a>; Phone +94-11-2678770, Prof. Vijaya Kumar (Conference Co-Chair) email: <a href="mailto:vkumar155@yahoo.co.uk">vkumar155@yahoo.co.uk</a>; Phone +94-77-3166613.

# **International Advisory Committee:**

Prof. Vijaya Kumar (Chair)(Sri Lanka)

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Dr. VinithaThadani,

Model Abstract (Presenter ABC David):

Nanocapsules of knowledge to replace pre-school education

## A. B. C. Davida, E. F. G. Hussainb and J. K. L. Muyama

<sup>a</sup>College of Educational Nanotechnology, University of the Indian Ocean, Capital city 20400, Paradise Island; <sup>b</sup>Centre for Nanotechnology, University of the Sea, Eldorado 16433, Vietbodia

Nanomaterials can be introduced into human bodies through a variety of method. They include oral consumption, sub-cutaneous vaccination, intra-venal vaccination and transdermal drug delivery through adhesive skin patches<sup>1</sup>.

Many developing countries have been unable to mobilize sufficient funding for education and pre-school education is neither formalized nor covered by the state educational system. However it has been established that high quality pre-school education equips a child with the knowledge required to perform well in primary, secondary and University education<sup>2</sup>. Hindrances to successful transfer of knowledge at pre-school level include lack of interest on the part of children, limited concentration span, non-availability of specialized teachers and the inability to identify the talents student possess at a young age. Formal methods of education can therefore play only a limited role in providing high quality education to pre-school children.

We have developed data packages containing such educational materials using advanced information technology concepts including expert systems and cloud technology. Expert systems could identify areas where knowledge is required and access the cloud which has depositories of essential knowledge for high quality education at pre-school level. However problems arose as to how this knowledge could be transferred to the pre-school child.

We have now converted these data packages into nanomaterials which could be placed as a nano-layer on an adhesive skin patch. The patch could be successfully utilized for transdermal knowledge delivery when positioned above the right ear of an individual. The patch has been used on 110 pre-school children and a mean improvement of intelligence quotient of 30.3 % was recorded thirty days after exposure when compared to pre-exposure levels. Preliminary studies undertaken by us on adverse reactions to the health of the children caused by transfer of nanomaterials to the brain have revealed that while hyperactivity was observed in 12.3% of the subjects, this could not be solely ascribed to the treatment. However, we are presently studying animal models to ascertain what nanomaterial, if any, is transferred to brains of organisms when an adhesive skin patch is placed above the ear.

Financial support from the Galactic Empire (Grant 2040/X/10) is gratefully acknowledged

#### **References:**

- 1. A. B. Carbon, D. E. Fullerene and G. H. Indium, Review on methods of nanomaterial transfer to human organisms, *Journal of Speculative Nanobiology*, 2012, **4**, 213-232.
- 2. J. K. Learner and M. N. O. Pedagogue, Does Pre-school education affect learning ability at primary, secondary and tertiary levels?, *Bulletin on Cosmic Educational Psychology*, 2008, 22, 198-216.

SCIENCE COUNCIL OF ASIA CONFERENCE (SCA -16)

**Registration Form**(Note: Early Bird Registration on or before March 25, 2016)

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