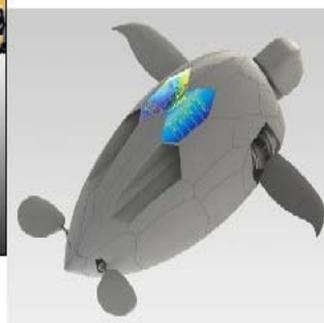
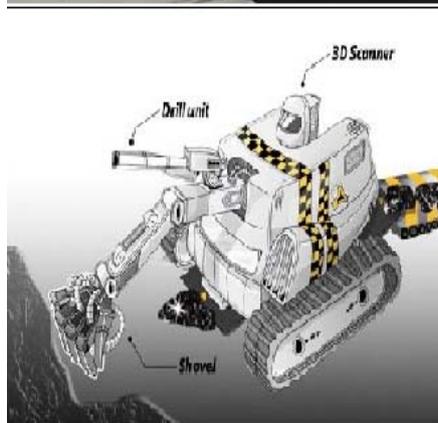


REPORT

Roundtable Discussion



16 July
2014

Establishing a Centre of Excellence for
Robotic Applications

Coordinating Secretariat for Science Technology
& Innovation



ORGANISING TEAM

Prof. Sirimali Fernando, Chief Executive Officer, COSTI

Prof. Ajith de Alwis, Project Director, COSTI

Prof. Kapila Jayasinghe, Co-chairman, National Council on

Electronics and Robotics

Mr Merrick Goonaratne, Co-chairman, National Council on

Electronics and Robotics

Ms Amali Ranasinghe, Project Scientist, COSTI

Ms Maheeni Samarakoon, Deputy Manager, COSTI

Mr Pulendran Tharmendra, Deputy Manager, COSTI

REPORT PREPARED BY

**Coordinating Secretariat for Science
Technology and Innovation**

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EXECUTIVE SUMMARY

This report presents a summary of presentations made by resource persons and the discussions and suggestions being made during the roundtable discussion. The workshop was organized by the Coordinating Secretariat for Science, Technology & Innovation (COSTI) with the aim of (1) identify specific industrial needs and priorities, (2) identify key industrial partners/ collaborators, (3) identify strategies for operationalizing CERA.

A total of 40 participants representing both public and private sector attended the workshop. Participants included the cross section of relevant industry personnel, scientists, academia, senior officials of ministries, policy makers. The workshop was graced by, Prof. Tissa Vitarana Hon. Senior Minister for Scientific Affairs as the chief guest.

This report underlines key suggestions extracted from the meeting

MEETING AGENDA

Roundtable Discussion on the Establishment of Centre of Excellence for Robotics Application (CERA)

16 July 2014, SLIDA

09.00 – 09.30 Registration

09.30 – 09.50 Introduction to the roundtable discussion
Prof. Ajith de Alwis Project Director COSTI

9.50 – 10.20 Address by the chief guest
Prof. Tissa Vitarana, Hon. Senior Minister for Scientific Affairs

10.20 – 10.45



10.45 – 11.15 Presentation on CERA
Prof. Kapila Jayasinghe

11.15 – 12.45

Discussion
Panelist: Prof. Ajith de Alwis, Project Director, COSTI
Prof. Kapila Jayasinghe, Co- chair National Council on Electronics and Robotics
Mr. Merric Goonaratne, Co- chair National Council on Electronics and Robotics

12.45



OBJECTIVES OF THE DISCUSSION

The discussion was organized with the objectives of:

- Identify specific industrial needs and priorities
- Identify key industrial partners/ collaborators
- Identify strategies for private sector collaboration

PRESENTATIONS AT- A- GLANCE

Prof. Ajith de Alwis, Project Director, COSTI

Prof. Alwis highlighted the importance of hi-tech manufacturing in Sri Lanka for future Economic growth. He pointed out that hi-tech manufacturing is a key driver of economic performance in the advanced economies. Further stated that Sri Lanka had already taken efforts to promote science, technology and innovation by drafting the National Science and Technology Policy and the National Science, Technology and Innovation strategy. Several countries had achieved high economic growth through implementing flagship programmes promoting science technology and innovation. He also pointed out that South Korea's rise to prominence is facilitated through such flagship programme (HAN G7) which lead Korea to be the world's top ranker in mobile and LED technologies. One of the key impediments for Sri Lanka moving in that direction is the scattered nature of science technology and innovation community in the country and therefore coordination is a vital to bring them together. The presentation also featured COSTI's overall framework and its intended operational modality. Moving to the initiative of CERA he pointed out that CERA is a necessary and truly a collaborative initiative that would take Sri Lanka's robotic and automation sector a step further. Finally Prof. Alwis elaborated on the interactive IT platform that COSTI is deploying for sharing, communicating, collaborating and initiating national innovation projects.

Prof. Tissa Vitarana, Hon. Senior Minister for Scientific Affairs

The honourable senior minister stressed the need to advance science and technology frontier, in order sustain the economic growth and contribute towards poverty reduction efforts. He pointed out even though major economies such as the USA were amidst an economic crisis and was cutting down on government expenditure it in fact increased budgetary allocation for science, technology and research underlining the importance of R&D and innovation in economic growth. The senior minister further expressed his believe that CERA would contribute in a meaningful way to the industry and is a timely initiative. Also commented that CERA would help to address labour vacuum experienced in some of the traditional industries in Sri Lanka. The honourable senior minister further stated that to compete in the global market product standards should meet international criteria and be of high quality.

Prof. Kapila Jayasinghe, Co-chair National Council on Electronics and Robotics/ Senior Professor University of Moratuwa

Prof. Kapila Jayasinghe commenced his presentation focusing on the different ways a robot is being defined. The definition is followed by a presentation on the different applications a robotic/ automated system could generate. Prof. Jayasinghe highlighted the National Robotics Engineering Center (NREC) of Carnegie Mellon University and how it is being operated. He also presented on worldwide supply of industrial robots by key sectors. He highlighted the segregated nature of academic and industrial sectors in Sri Lanka and the differing thought process each possess on the subject.

Prof Jayasinghe stressed on the need for effective transformation of research in to industrial application, and the role intermediaries play in similar circumstances in advanced countries. He expressed his hope that CERA could bridge between the industry requirement and researcher carried out by academics. He elaborated on the services that would become available through CERA once it become functional and the key would be partners at the macro level. Different modes of industry collaboration and mode of technology transfer were also pointed out. Prof. Jayasinghe highlighted the need for a stronger organizational structure for the successful functioning of CERA and concluded his presentation with presenting the budget allocation for CERA.

DISCUSSION

The discussion was chaired by Prof. Ajith de Alwis, Project Director COSTI along with the panelists, Prof. Kapila Jayasinghe and Mr. Merric Goonaratne Co-chairs National Council on Electronics and Robotics.

Key Discussion Points

1. **Industrial needs:** One of the key discussion points during the roundtable session is identifying industrial needs in the areas of automation and robotic application. Some of the participating industries had expressed their interest and willingness to be potential collaborators.
2. **Strategy for CERA:** Another discussion point that emerged during the session is the strategy CERA should pursue to create a meaningful impact. Whether it should focus on localized problems or focus on a niche in the global market.
3. **Operational modality:** The discussion centered on the organizational structure and modality of CERA.

Summary of Questionnaire

Out of the questionnaires distributed (approximately 25) 19 respondents had returned the completed questionnaires. Analysis had revealed that 53% of the respondents do not have robotic/ automated systems (those who responded negatively includes EDB and MTI consulting), but 89% of them envisage future use of such systems in their institute. When asked in which way CERA could help them, 32% had selected training/ awareness, 68% developing robotic/automated system, 11% upgrading existing system, and other assistance 26%. The cross section of the industries participated include mining, foundry, garment, pharmaceuticals, plantation sector, companies providing automation solutions etc. In responding to the question of possible ways for collaboration 53% were willing to collaborate as researchers, 21% as investors, 58% as end users, 5% were not sure and 16% were unspecific/ selected other ways.

Some of the participants such as Alumex, the Foundry Development and Service Institute, tea research institute and the mining industries had expressed specific automation/ robotic application needs for their respective industries.

KEY SUGGESTIONS

- 1. Focus on local immediate problems / issues:** Significant number of participants had suggested that CERA should address immediate and local problems with in the Sri Lankan context first and expand towards other sectors/export markets gradually. It was pointed out the gradual expansion would allow to accumulate technical capability and secure industry confidence and support. The mining industries, foundry industries, and plantation sector had highlighted existing problems during the session.
- 2. Global markets:** It was also suggested that CERA should aim to become a center of excellence at global scale. It was pointed that it could be achieved through focusing on a small niche in the sector and attaining excellence.
- 3. Specifying problems and return on investment:** It is crucial to identify automation needs and developing solutions that are cost effective at the same time. Proper assessment of return on investment is crucial. Product development should adhere to strict time schedules since industrial needs change frequently and specific automation/ robotic system become obsolete with time.
- 4. Intellectual property rights:** Attention was also brought to issues related to intellectual property rights. IP rights should be managed in a manner that creates optimum value for CERA and facilitating commercialization within a reasonable time frame.
- 5. Visibility creation:** During the early stages of CERA's operation it may be essential to create visibility and visibility reach out to the public. This could help to gain national momentum, garner public support and attract private investors.
- 6. Organizational structure**

An appropriate organizational structure that contains fulltime staff operating with comparable efficiency of the private sector is recommended. CERA should contain both research and commercialization arms in order translate research in to Rupees.
- 7. Increase investment**

It was pointed that the fund allocated for CERA initiative might not be sufficient and increase might be required.

ANNEX I: RESOURCE PERSONS

Prof. Sirimali Fernando
Chief Executive Officer, COSTI

Prof. Ajith de Alwis
Project Director, COSTI

Prof. Kapila Jayasinghe
University of Moratuwa

Mr. Merrick Goonaratne
Managing Director, TOS Lanka pvt Ltd

ANNEX II: DETAILS OF PARTICIPANTS

No	Name	Institute
1	Mr. Chaturanga Perera	MTI Consulting
2	Mr. D. Kalansooriya	Kahatagaha Graphite
3	Mr. Beshan C. Wijemanne	Nikini Automation
4	Mr. Ashan Isuru Uyangoda	Lanka Harness Co (Pvt) Ltd
5	Mr. Thinusha Bamunuarachchi	Lanka Harness Co (Pvt) Ltd
6	Mr. Lakshitha Karunaratne	Sakura Graphite (Pvt) Ltd
7	Mr. Surendra Karunakaran	Brandix
8	B.S. Samarasinghe	University of Moratuwa
9	K.H.J. Mangala	University of Moratuwa
10	S. Ganegoda	LTL holdings
11	C.L. Fernando	LTL holdings
12	Mr. Sambath Logus	CNCI
13	Dr. Anura Pushpakumara	University of Ruhunu
14	Mr. Melvin Samarasinghe	FDSI
15	Mr. S. Arunan	University of Jaffna
16	Ms. Vajira Kularatne	EDB
17	Mr. Manjula Waas	Zone 24x7
18	Dr. C.D. Wickramatilake	Alumex
19	Mr. V.R. Jeyasekara	OUSL
20	Mr. Wasaba Jayasekera	Heyleys Fibre
21	Mr. K. Wickremaratne	Sakura graphite
22	Eng. S. A. Karunaratne	Kahatagaha graphite
23	Dr. Jagath Samarawickrama	University of Moratuwa
24	Dr. R.A.R.C. Gopura	University of Moratuwa
25	Dr. S.S. Jayawardana	University of Moratuwa
26	Mr. Upul Bandara	Astron Ltd
27	Mr. Ross De	Astron Ltd
28	Mr. Anushka Wijesinghe	IPS
29	Mr. Samen Meldani	EDB
30	Mr. Merrick Goonaratne	SLEMEA
31	Prof. Kapila Jeyasinghe	University of Moratuwa
32	Prof. Sirimali Fernando	COSTI
33	Prof. Ajith de Alwis	COSTI

34	Dr Noble Jayasuriya	COSTI
35	Dr Geetha Abeysinghe	COSTI
36	Mrs Amali Ranasinghe	COSTI
37	Mr Pulendran Tharmendra	COSTI
38	Ms Maheeni Samarakoon	COSTI
39	Mr. Chamikara de Silva	COSTI
40	Mr. Shanika Abeyratne	COSTI

