**UNIVERSITY OF RUHUNA**

**Department of Physics**

**in collaboration with the**

**Sivananthan Laboratories, USA, Institute of Fundamental Studies, Kandy and the National Science Foundation, Sri Lanka, will organize an**

**“Advanced Workshop on Thin-film Solar Cells: their science, fabrication, and characterization”**

***(19-21 March 2013)***

***Conducted by***: Dr. Tim Coutts, Dr. Tim Gessert, Dr. Ramesh Dhere and Dr. Mowafak Al-Jassim,

Sivananthan Laboratories, Inc., USA

Sivananthan Laboratories, Inc. Illinois, USA in collaboration with Sri Lankan universities and research institutes, has launched a programme to develop a trained workforce of scientists, engineers and technicians in Sri Lanka who will be competent in alternative energy technologies. In order to contribute toward this, a two day workshop on ***Solar Photovoltaic Technology*** was held at the Institute of Fundamental Studies, Kandy on 28th and 29th June 2012. The second “advanced” workshop in this series will be held at University of Ruhuna, Matara from 19th to 21st March, 2013.

Scientists and Engineers from universities/research institutes/other state and private sector organizations, preferably with a Ph.D./M.Phil/M.Sc. or equivalent postgraduate or professional qualifications, and also graduates in Engineering and Science who have an interest in participating in this activity and hoping to be active players of an vibrant photovoltaic R&D community in Sri Lanka are invited to send their applications to:

***Dr. G.D.K. Mahanama, Coordinator, Solar PV Workshop, Department of Physics,***

***University of Ruhuna, Maddewatta, Matara***

on or before **20th February, 2013.**

Further information can be obtained from: [*mahanama@phy.ruh.ac.lk*](mailto:mahanama@phy.ruh.ac.lk)

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**Tentative programme**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Day** |  |  |  |  |
| 1 | Welcome  Session | 8:30-8:40 | Dean/Science | Welcome Speech |
| 8:40-8:50 | S. Sivananthan | Introduction/Overview |
| 8.50-9.00 | Vice Chancellor | Vice Chancellor’s Address |
| Coffee/Tea | 9:00-9:30 | Morning Coffee/Tea |  |
| **Item/**  **Lecture#** | **Time Slot** | **Presenter** | **Lecture Topic** |
| 1 | 9:00-10:00 | Tim Gessert | Overview of Renewable Energy Technologies (Wind, Bio, Solar, etc). |
| 2 | 10:30-11:30 | Tim Coutts | Solid State Science for Solar Cells 1 |
| Lunch | 11:30-1:00 | Lunch |  |
| 3 | 1:00-2:00 | Tim Coutts | Solid State Science for Solar Cells 2 |
| 4 | 2:00-3:00 | Mowafak Al-Jassim | Si Solar Cells |
| Tea | 3:00-3:30 | Afternoon Tea |  |
| 5 | 3:30-4:30 | Ramesh Dhere | General Polycrystalline Materials |
| 2 | 6 | 9:00-10:00 | Tim Gessert | Hardware of Thin-Film Growth |
| Coffee/Tea | 10-10:30 | Morning Coffee/Tea |  |
| 7 | 10:30-11:30 | Ramesh Dhere | Thin Film CdTe: History to Present Devices |
| Lunch | 11:30-1:00 | Lunch |  |
| 8 | 1:00-2:00 | Tim Gessert | Other Thin-Film Materials |
| 9 | 2:00-3:00 | Mowafak Al-Jassim | III-VI PV Materials and Devices |
| Tea | 3:00-3:30 | Afternoon Tea |  |
| 10 | 3:30-4:30 | Ramesh Dhere | Thin Film Characterization - Optical |
| 3 | 11 | 9:00-10:00 | Mowafak Al-Jassim | Thin Film Characterization – Structural and Chemical |
| Coffee | 10:00-10:30 | Morning Coffee |  |
| 12 | 10:30-11:30 | Tim Coutts | Future Directions in Thin Films |
| Closing session | 11:30-noon | S. Sivananthan | 5-10 min |
| G.D.K. Mahanama | 10 min: Vote of Thanks |
|  |  | 12.00-1.00 | Lunch |  |

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**APPLICATION FORM**

|  |  |  |
| --- | --- | --- |
| Name with Initials: |  | |
| Office address: |  | |
| E-mail: | Tel: Office | Mobile: |
| Present Employment |  | |
| **Educational Qualifications** | | |
| B.Sc. (University, Year) |  | |
| M.Sc. (University, Year) |  | |
| M.Phil. (University, Year) |  | |
| Ph.D. (University, Year) |  | |
| Other |  | |

|  |  |
| --- | --- |
| **Area of Research Interest** |  |
| Any previous experience/exposure to semiconductors, solar cells, solar energy materials, solar panels, etc. Please give details.  (Please attach any research publications as proof) |  |

Signature: Date:

The registration fee for applicants from state sector organizations (universities, research institutes) and M.Phil./Ph.D. research students (proof of registration for a degree and recommendation from the supervisor are necessary), will be covered by a grant from the NSF. **For all other applicants, the registration fee is Rs. 3000/=.**

Lunch and tea during the workshop sessions and a book of hand outs will be provided to all participants free of charge. However, accommodation and transport will NOT be provided.

Please send your completed application by e-mail ([mahanama@phy.ruh.ac.lk](mailto:mahanama@phy.ruh.ac.lk) or solarpvur@yahoo.com) and a signed copy by mail or fax (041 2222683) to:

***Dr. G.D.K. Mahanama, Department of Physics, University of Ruhuna, Maddewatta, Matara*** to reach him on or before 20th February 2013.

As there are only 50 places available, participants are selected on the first-come-first-serve basis, as the applications are received by the organizers. Selected applicants will be informed by an e-mail.

*Organizers will be happy to assist in recommending suitable paid accommodation in private guest houses (close to Ruhuna) as given below. Please contact them as early as possible if you need to reserve a room.*

1. Sarvodaya Guest: Mr. Dassanayaka/Mr. Hasantha, <Tel:0412222145>
2. Cooperative Guest: Mr. Prabash, <Tel:0412222401>, 0713081343