

Sensor Systems for Agricultural Applications

15th March, 2017

Participation/Registration Form

Please complete the details below and e-mail the scanned copy to wesaa2017.iee.ju@gmail.com.

1. Name: _____

2. Designation: _____

3. Sex (M / F): _____

4. Highest academic qualification: _____

5. Name and address of Organization:

6. E-mail: _____

Tel (M): _____

Signature of the Applicant

Signature with seal of the Forwarding Authority

Photocopy of this form is accepted.

General Information

The workshop will be held at Hotel Sonnet Block: DD. Plot No.:08, Sector-01, Salt Lake, Kolkata - 700064, INDIA near the City Centre of Salt Lake

Eligibility for Participation

Management and Research Personnel from Tea Industries /Research Institutions/Faculty of Educational Institutes/ Research Scholars from different fields of Science and Technology.

How to Apply

There is no Registration Fee. Interested participants need to apply in the format given. The scanned copy of completed Participation/Registration Form should be mailed at wesaa2017.iee.ju@gmail.com, latest by **March 10, 2017**. The total number of seats in this workshop is limited to 80.

Address for Correspondence

Prof. Rajib Bandyopadhyay
Convener

Dr. Runu Banerjee Roy, Dr. Prolay Sharma
Joint Convener

Sensor Systems for Agricultural Applications

Department of Instrumentation and
Electronics Engineering
Salt Lake Campus, Jadavpur University
Block LB, Sector III, Kolkata 700 098
Email: rb@iee.ju.ac.in
bandyopadhyay.rajib@gmail.com

Sensor Systems for Agricultural Applications

15th March, 2017

Venue: Hotel DE Sonnet Block: DD. Plot No.:08, Sector-01, Salt Lake, Kolkata - 700064,



Organized By

Department of Instrumentation and
Electronics Engineering
Jadavpur University, Kolkata

In association with

Centre for Development of Advanced
Computing, Kolkata
National Tea Research Foundation
Tocklai Tea Research Institute, Tocklai
National Institute of Technology, Patna

Sponsored By

Technical Education Quality
Improvement Programme (TEQIP)
Phase-II

The Theme

For quality monitoring of agro products, sensor systems have wide contributions. Almost every sensing technique may find an application in agriculture and the food industry. Among them the present focus is on electronic sensors mainly which can classify the agro and food samples based on aroma, taste and appearance. This workshop aims to discuss the applicability of electronic nose, electronic tongue and NIR spectrometer for quality estimation of agro products. MOS and QCM based sensor array have already been applied as electronic nose for various agro products like tea, basmati rice, mango, tomato etc. Noble metal electrode array is used for electronic tongue for tea, honey etc. The NIR spectrometer is an analytical instrument that comprises of a source, detector and a dispersive element or an interferometer and it measures the spectral response of the radiation transmitted through or reflected by a sample, at near infrared frequencies. Multivariate calibration algorithms and statistical methods (i.e. chemometrics) are used to develop a model that correlates the NIR spectral response to chemical or physical properties of the samples used for calibration. This model is used for subsequent qualitative and quantitative analysis of the sample being evaluated. Another major application of sensor systems is to detect the adulterate used in market for agro and food products—e.g, additives used for ripening fruits, for imparting fresh look of fruits and vegetables, for artificial color and flavor of edible oil and many more.

In this scenario Jadavpur University in collaboration with C DAC, Kolkata, NTRF, TTRI, Jorhat and NIT, Patna will organize this workshop with an aim that the present issues related to sensing system will be discussed amongst the researchers, industries and practitioners at the national level.

Topics

✦ Introduction to sensors applicable for agro product quality estimation.

✦ Experiences with NIR spectroscopy for other applications.

✦ Results obtained from different types of sensors applications.

✦ Possibilities and challenges.

Programme

March 15, 2017

9: 00 a.m.	Registration
10:00 a.m. - 11: 00 a.m.	Inaugural Session
11:00 a.m. - 11:20 a.m.	Tea Break
11:20 a.m. - 1:00 p.m.	Technical Session I
1:00 p.m. – 2:00 p.m.	Lunch
2:00 p.m. –3.20p.m.	Technical Session II
3.20pm-3.40pm	Tea
3.40pm-5.00pm	Technical Session III
5.00pm-5.45pm	Valedictory Session

Technical Advisory Committee

1. Prof. Suranjan Das, Vice-Chancellor, Jadavpur University, Kolkata.
2. Prof. A. S. Verma, Pro-Vice-Chancellor, Jadavpur University, Kolkata.
3. Prof. E.S.R. Gopal, Emeritus Professor, IISC Bangalore (Former Director CSIR-NPL, Delhi).
4. Prof. H. Saha, Coordinator, Center for excellence for green energy and sensor systems, IEST, Shibpur.
5. Dr. R. Bhattacharyya, Adj. Professor, Center for excellence for green energy and sensor systems, IEST, Shibpur.
6. Dr. Surajit Ghosh, Technical Advisor, Vikram Solar Pvt. Ltd.
7. Dr. A. K. Barooah, Director, TTRI, Jorhat.
8. Prof. Dipak Chandra Patranabis, Former Professor, IEE, Jadavpur University, Kolkata
9. Dr. Anutosh Chatterjee, Retired Scientist Bose Institute, Kolkata
10. Prof. P. Pramanik, Retired Professor from IIT Kharagpur
11. Dr. N. Bhattacharyya, Director, C-DAC, Kolkata.
12. Prof. Asok De, Director, NIT Patna.
13. Dr.A.Bandyopadhyay, Retired Scientist from ICAR.
14. Prof. U.S Triar, HOD Electrical, NIT Patna.
15. Prof. K. Ray, Retired Professor, IEE, JU.
16. Prof. Rajanikanta Mudi, HOD, IEE Department, JU.
17. Prof. Pulak Mukherjee, Director, School of Natural Products, JU.
18. Prof. Mousumi Poddar Sarkar, Dept. of Botany, CU.

Organizing committee

Technical Committee:

1. Dr. Pradip Tamuly, Head, Bio-chemistry Deptt, TTRI, Jorhat
2. Mr. Sandip Sanyal, Head,TPMA Dept., TTRI, Jorhat
3. Mr. Ajanto Kr. Hazarika, Scientist, TTRI, Jorhat
4. Dr. Santanu Sabhapondit, Scientist, TTRI, Jorhat
5. Mr. Alokesh Ghosh, Principal Engineer, C-DAC, Kolkata.
6. Ms. Hena Roy, CDAC, Kolkata
7. Mr. Jayanta Kumar Roy, Principal Technical Officer, C-DAC, Kolkata
8. Mr. Amitava Akuli, CDAC,Kolkata
9. Prof. Ardhendu Ghosal, IEE, Jadavpur University, Kolkata.
10. Prof. Subhankar Bandyopadhyay, IEE, Jadavpur University, Kolkata.
11. Prof. Bivas Dam, IEE, Jadavpur University, Kolkata.
12. Mr. Kalyan Majumdar, IEE, Jadavpur University, Kolkata.
13. Prof. Kumardeb Banerjee, IEE, Jadavpur University, Kolkata.
14. Prof. Bhaswati Goswami, IEE, Jadavpur University, Kolkata.
15. Prof. Ratna Ghosh, IEE, Jadavpur University, Kolkata.
16. Prof. Bipan Tudu, IEE, Jadavpur University, Kolkata.
17. Dr. Arunangshu Ghosh, NIT Patna
18. Dr. Abhijit Chandra, IEE , Jadavpur University, Kolkata.

Members:

1. Mr. Somdeb Chanda , IEE, Jadavpur University, Kolkata.
2. Ms. Trisita Nandy Chatterjee, IEE, Jadavpur University, Kolkata.
3. Mr. Sudip Biswas, IEE, Jadavpur University, Kolkata.
4. Mr. Nilava Debabhuti, IEE, Jadavpur University, Kolkata.
5. Mr. Hemanta Naskar, IEE, Jadavpur University, Kolkata.
6. Sk.Babar Ali, Future Inst. of Engg. & Mgmt., Kolkata
7. Ms. Barnali Ghatak, IEE, Jadavpur University, Kolkata.
8. Mr. Dilip Sing, IEE, Jadavpur University, Kolkata.
9. Ms. Mahuya Banerjee, IEE, Jadavpur University, Kolkata.
10. Ms. Soumita Kar, IEE, Jadavpur University, Kolkata.
11. Ms. Sushmita Pradhan, IEE, Jadavpur University, Kolkata.
12. Ms. Samhita Dasgupta, IEE, Jadavpur University, Kolkata.
13. Mr. Arun Jana, CDAC,Kolkata
14. Mr. Subhankar Mukherjee, Project Scientist, C-DAC, Kolkata
15. Mr. Devdulal Ghosh, CDAC,Kolkata
16. Mr. Subrata Sarkar, CDAC,Kolkata