ABOUT BMS COLLEGE OF ENGINEERING

The BMS College of Engineering (BMSCE) was founded by late philanthropist Shri B M Sreenivasaiah (BMS) in the year 1946 foreseeing the urgent need for Technical Education in India even before independence. He was honored with the title "RajaKaryaPrasaktha" by the Maharaja of Mysore. After the demise of Shri B M Sreenivasaiah, the founder's dynamic and enterprising son Shri B S Narayan took over the reins of the College. Under his able guidance, the institution grew from strength to strength. BMSCE has qualified and experienced faculty, excellent infrastructure, state of art laboratories and computing facilities. The college offers 14 UG programs, 8 PG programs in engineering. In addition it also offers MCA & MBA programs. The college promotes Research in engineering through its eight recognized Research Centers.

ABOUT THE DEPARTMENT OF MEDICAL ELECTRONICS

The college established the branch of Medical Electronics in 1992 to expand its academic horizon in the fast growing field of healthcare technologies. Having batch strength of around thirty and with an experienced and well qualified faculty, the college has laid its focus to impart synergistic education in the field of medical electronics and life sciences to translate it into real world applications. The institution has thus been able to contribute a large pool of talented biomedical engineers into the industry. The department has lot of collaborations with reputed universities and industries in India and abroad.

ABOUT THE SYMPOSIUM

The first day of the symposium deals with Statistical Parameter Mapping (SPM), software written in Matlab, which is an introductory hands on course designed for investigators having some familiarity with the fundamental principles of Image Processing. Requiring no previous experience with SPM, it provides a basic grounding in the conceptual and practical issues associated with using SPM8 for fMRI analysis. Functional MRI in Clinical Research and Practice used for Measurement, Design and Analysis, designed to give clinical investigators a short introduction to the issues associated with using structural and functional MRI in clinical research studies. (http://www.fil.ion.ucl.ac.uk/spm/)

On the second day, the discussions will be based on few applications and research opportunities in the field of Medical Electronics from resource persons from reputed Institutes through and demonstration of latest Biomedical Equipments.

WHAT'S THERE IN SYMPOSIUM?

Day 1:
Mr Tosif Ahamed, Research Engineer ATR Neural Information Analysis Labs, Kyoto, Japan, did his masters from University of Edinburgh in Neural Computation and Neuroinformatics. He is currently working on Neuroimaging studies. Most of the work deals with analyzing fMRI and Diffusion imaging datasets. He uses both classical SPM based analysis methods as well as multivariate pattern analysis methods which use machine learning approaches like SVM and Sparse Logistic Regression. Mr Tosif will cover theory with hands-on session.

Day 2:
Discussions on various research opportunities for Young researchers in Medical Electronics and Biomedical fields by **Dr Tushar Kanti Bera**, Post Doc Researcher, Department of Computational Science & Engineering, Yonsei University, Seoul, South Korea by Video Conference. Dr Bera pursued his PhD from IISc, Bangalore and currently working on Medical Imaging in Yonsei University for his Post doc. He has lot of Technical Papers and Laurels to his credit.

Live Demonstration of Biomedical Acquisition Devices by resource persons from various Biomedical Instruments company including AD Instruments, Gentech Technologies, Pamtrons, TMI Systems, Cranes Software (Official Academic Partner of Texas Instruments), National Instruments and many more.
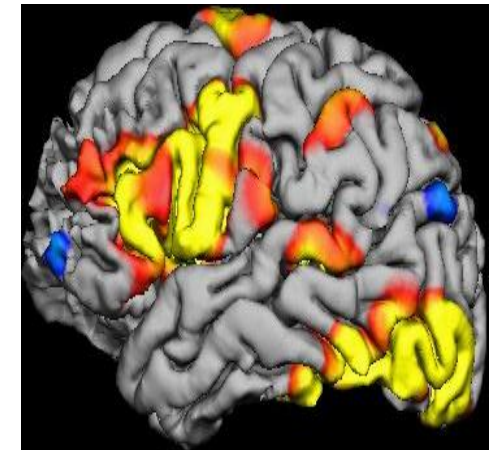

INTERNATIONAL SYMPOSIUM ON MEDICAL ELECTRONICS (ISME'13)

January 30th & 31st, 2013

Dr H N SUMA, M Tech, PhD
Convenor

ORGANIZED BY
**DEPT OF MEDICAL ELECTRONICS,
B M S COLLEGE OF ENGINEERING,
BANGALORE, KARNATAKA-560019, INDIA**

CONVENOR

Dr H N Suma,
Professor and Head,
Department of Medical Electronics, BMSCE,
Bangalore, Karnataka – 560019, India

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Dr G N Sekhar, Vice Principal, BMSCE
Mr Tosif Ahamed, Research Engineer, ATR Neural Information Analysis Labs, Kyoto, Japan

ORGANIZING COMMITTEE - BMSCE

Mr. S Y Pattar, Associate Prof
Mrs. K Vijayalakshmi, Associate Prof
Mrs. Beena Ullala Mata, Associate Prof
Mrs. Kalpana R, Assistant Prof
Mrs. Manisha Joshi S, Assistant Prof
Mrs. Niranjan K R, Assistant Prof

WHO CAN ATTEND THE SYMPOSIUM

The symposium is open to the faculties, Students and Research Scholars of Medical Electronics, Biomedical, Electronics, Electrical, Instrumentation, Computer Science, Information Science and related Streams. The number of participants is limited to 30 on first come first serve basis.

REGISTRATION FEE: The registration fees include the registration kit, Local hospitality and refreshments. No TA/DA and accommodation will be provided to the participants. Registration is on first come first serve basis **(30 Participants Only).** Registration fees can be paid by DD in favour of "HOD, Medical Electronics" or Cash to the coordinator.
UG Student: Rs.500/-
PG Student / Full Time Research Scholar: Rs. 600/-
Faculty: Rs. 1000/-
Industry Participants: Rs 1500/-
International Delegates: Rs: 2500/-
Website: www.bmsce.in

Hands on Session Details

Day 1 itinerary:

- Morning Session: Prerequisite Introductory talk on basic concepts.
- Afternoon Session: Hands on session of the entire pipeline and analysis for a complete dataset. The topics to be covered are:

1. Quick intro to MRI and fMRI
2. Basic statistical analysis, hypothesis testing, t-test, F-tests
3. Multiple comparisons problem, briefly discuss how SPM takes care of it.
4. SPM Pipeline
   a. Data Preprocessing
   b. GLM and how it works.
   c. Specifying the Design matrix.
   d. Estimating GLM parameters
   e. Getting the activity maps based on contrasts.

Registration Form

**INTERNATIONAL SYMPOSIUM ON MEDICAL ELECTRONICS
(ISME'13)
Department of Medical Electronics, BMSCE, Blore
January 30th & 31st, 2013**

Name: _____

Category: UG Student/ PG Student/ Faculty/ Research Scholar/Industry

Institution:_____
_____

Address:_____
_____

Mobile:_____

Email ID: _____

Amount Paid: Rs._____

DD No. & Date:_____

Bank Name:_____

I will use my Laptop: Yes/No

I would like to attend this Symposium because
_____
_____
_____
_____

Participants Signature with Date:

Signature of HoD/ Prinicipal/ Authorized Person with Date