





Technical Workshops Series – 2015

One Day Campaign Workshop on

Medical Electronics

(Campaign on Medical Electronics @ Venture Center)
- Organized by Venture Center -

Potential gains	 Get an overview of key issues/ challenges and emerging opportunities Explore potential industry-academia/research/medical fraternity partnerships in technology development and advancement in medical electronics. Meet and network with innovators, enthusiasts and experts in the Pune region. Learn about recently announced funding opportunities 	
Workshop Director	Dr Niranjan Khambete, Manager – Clinical Engineering, Deenanath Mangeshkar Hospital and Research Centre; Secretary, Biomedical Engineering Society of India	
Organized by	Bioincubator at Venture Center (Bioincubator at Venture Center is supported by BIRAC, Government of India)	
Supported by	 Venture Center Deenanath Mangeshkar Hospital and Research Center BIRAC via its mentoring program for BIG grantees 	
For whom	 Medical technology innovators, technologists Clinicians and medical technologists Social innovators focused on health care for the poor and rural India Entrepreneurs/ startups with interest in medical technology Engineering and medical sciences students 	
When	Saturday, 20 th June 2015; 0900 - 1700 hrs	
Where	Training Room, Venture Center, 100 NCL Innovation Park, Dr. Homi Bhabha Road, Pune	
Contact	Ms. Lipika Biswas, Venture Center, 100, NCL Innovation Park, Dr. Homi Bhabha Road, Pune – 411008 Phone: +91-20-64011023; +91-20-25865877; Email: <u>eventsdesk@venturecenter.co.in</u>	
Cost	 Rs 500 per head. Prior registration is required. Register online at: http://vcevents.pandaform.com/pub/xzyhwf/new Attendance only on confirmation of registration. First preference to medical technologists, entrepreneurs, clinicians and researchers. Students shall be allowed to participate if seats are available. Organizers reserve the right to select participants so as to maximize learning and networking opportunities for the group. Limited (40) seats. Free attendance and participation for BIG and SPARSH grantees of BIRAC 	







Introduction

We aim to network all stakeholders to help initiate useful projects, start-ups etc in medical electronics space. This workshop is part of a campaign of Venture Center to nucleate and nurture medical electronics startups in the Pune region. The workshop is aligned intentionally with the announcement of funding program so as to help facilitate startup creation.

Workshop aims to:

- Explore potential industry-academia/research partnerships in technology development and advancement.
- Foster networks with industry/academic experts/doctors/entrepreneurs
- Introduce some recent funding opportunities including the BIRAC-DEITY call, Villgro etc for medical electronics.

Workshop Outline

Workshop shall consist of:

- Talks
- Panel discussions
- Networking sessions

Workshop includes

- Workshop includes tea, snacks and lunch at the Innovation Cafe
- Membership in mailing list to follow-up on workshop and advance intimation of emerging funding opportunities
- Access to a restricted website with links to key resources for med tech professionals







SCHEDULE			
Time (hrs)	ТОРІС	Speaker	
0900-0930	Registration		
0930-1100	Session 1: Set the stage. Introductions. Overview and opportunities (20 mins) Challenges in developing medical electronics devices (40 mins). Principles of designing (40 mins) Planning for safety and risk management (20 mins)	Coordinator: Niranjan Khambete Speakers: Niranjan Khambete Arvind Savargaonkar (Challenges in developing medical electronics devices) Prakash Khanzode (Principles of designing) Niranjan Khambete (Planning for safety and risk management)	
1100-1115	Networking tea		
1115-1230	Presentation on Medical devices and diagnostics needs in India: Learning from clinical and rural immersion (20 mins) Panel on need identification, definition and prioritization. Panel of clinicians, clinical engineers and NGOs (to explore and understand needs)	Speakers: SIIP Fellows Panel Coordinator: Mugdha Lele and Niranjan Khambete Panel: Aparna Shrotri (Needs in rural environments) Dyanenshwar Shelke (Emergency Services) Sujit Jagtap (Neurologist) Prakash Khanzode (Design thinking perspective)	
1230-1330	Lunch		
1330-1445	Session 3: Emerging funding opportunities: An overview of emerging funding opportunities Q&A for funding schemes. Introduction to the DEITY-BIRAC call. Introduction to the Villgro call. Introduction to other such calls.	Coordinator: Pradnya Aradhye Speakers: Sonia Gandhi and P K S Sarma (BIRAC) Paul Belknap (Villgro) Pradnya Aradhye (Venture Center; Overview of other funding opportunities)	
1445-1500	Networking tea		
1500-1615	Session 4: Panel of entrepreneurs and innovators. Examples and inspiration. Hands-on insights and experiences in technology development, fund raising, commercialization etc	Coordinator: Premnath V and Niranjan Khambete Panel: Aniruddha Atre (Early stage start-up) Nishant Kumar/ Siddharth Chinoy (Early stage start-up) Gautam Morey (Entrepreneur) Arvind Savargaonkar (CURA; Established Medical Equipment Company) Pradeep Kolankari (IGATE) Vivek Mohile	
1615-1700	Closing comments and closure of the event		







Speakers and Panelist	ts (in alphabetical order of last names)
Pradnya Aradhye	Pradnya Aradhye is currently Bioincubation Manager, Bioincubator, Venture Center. She has done her M.Tech in Biological Sciences and Bioengineering from IIT Kanpur. Currently she is handling all BioIncubator activites at Venture Center. She is responsible for creating a pipeline of potential and signing-up incubates for the Bioincubator. Contribute to building scientific support systems and resources for VC incubates including specific expertise. Pradnya also carries out discussions with scientists to understand their competencies.
Aniruddha Atre	Mr Aniruddha Atre, Co-founder Jeevtronics Pvt. Ltd. Bachelors and Masters Degree in Mechanical engineering and MBA from Ross School of Business at the University of Michigan, Ann Arbor.
Paul Belknap	Paul leads the health incubation work at Villgro. He joined Villgro after spending five months working as an MBAs Without Borders Advisor to Villgro incubatee Sustaintech, during which time he helped the company with business development and internal information flow. Paul holds an MBA from Penn State's Smeal College of Business during which time he was the President of the Net Impact chapter there. Prior to completing his MBA he worked for five years as a mechanical engineer designing capital equipment for the paper industry. Much of this time was spent working on a number of new product development project teams. Paul also participated in and led multiple internal process improvement teams. Paul completed a B.S. in Mechanical Engineering at Gonzaga University during which he spent one year living in Florence, Italy.
Sonia Gandhi	Sonia Gandhi is working as Project Manager for Investments with BIRAC, New Delhi and is responsible for evaluation, due-diligence and management of innovative Healthcare technologies in various schemes of BIRAC. Besides this, Sonia is managing the Social Innovation Scheme "SPARSH" of Gol and recently began the Industry Innovation Program for Medical Electronics at BIRAC. As her personal interest, she is also involved in technical guidance and mentoring of start-ups and Entrepreneurs in Life sciences sector. Prior to this, Sonia was managing the Quality Assurance of Bio-pharmaceuticals at Reliance Life Sciences. She has participated as delegate and speaker in various national and International workshops and has been part of various new initiatives.
Sujit Jagtap	Dr Sujit Jagtap has vast experience in medicine of more than 10 years. He has received his training in Neurology at Shree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST). It is an institute of national importance and does pioneer work in epilepsy surgery and Parkinsons disease. He specializes in Epilepsy, Stroke, Sleep Disorders, Parkinsons Disease, Pediatric Neurology, Myasthenia Gravis and Neuromuscular Disorders. He is one of the founder members of Jagtap Clinic and Research Center- A Center of Excellence in Neurology and Endocrinology.
Pradeep Kolankari	To be added







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Dr Niranjan Khambete, has been actively contributing to the Medical Device R&D needs of the country for last two decades. He worked as a team leader to successfully complete the indigenous technology development and commercialization of Concentric Needle Electrodes. In recent years, Dr. Khambete has also focused his efforts towards spreading awareness about the Clinical Engineering Profession and promoting safe use of medical equipment in hospitals. He has been closely involved in development of academic and training curriculum of the Three-Institute Joint M. Tech. Clinical Engineering programme with IIT Madras and CMC Vellore, the first of its kind, and continues to work as the Joint Coordinator of this programme. As Secretary of Biomedical Engineering Society of India, he plans to lead efforts to develop a National Certification Programme for Clinical Engineers.

Prakash Khanzode



Prakash is Director and Principal Designer at Onio Design Pvt. Ltd., Pune. He is B.E. (Mechanical Engineering) from Mumbai University and has a Post-graduate diploma in Industrial Design from National Institute of Design. He is a practitioner of innovation by design and has vast experience in building the expertise of design thinking and creative engineering, leading dynamic teams of designers & engineers for creation of brands, products and services in the demanding verticals of Healthcare and Mobility.

Mugdha Lele



Mugdha is currently working as Program Manager for Social Innovation Immersion Program at Venture Center. She is Ph.D in Health Sciences from University of Pune. Her areas of interests include epidemiological profiling and molecular diagnostics for diseases of public health importance.

Vivek Mohile





Gautam Morey

Gautam Morey is the founder and CEO of Sofomo Embedded Solutions Pvt Ltd - a digital health Company that focuses on providing unbiased healthcare access to all Indians. He envisioned the "Lifeplot Connected Care Framework" that successfully realizes the unique idea of connecting medical devices to doctors and other care-givers with "unparalleled medical mobility". It is his firm belief that instead of waiting for healthcare infrastructure to catch up, India needs to firmly adopt disruptive use of ICT for healthcare delivery. At Sofomo, Gautam pursues continuous innovation in order to cultivate sustainable, real-world applications in low-resource settings. He designed and actualized the most recent of Sofomo's health outreach offerings, Arogya Sakhi, a program for doorstep community Health Services. He implemented the Lifeplot Connected Care Framework, realizing the unique idea of connecting medical devices to doctors and other caregivers with unparalleled medical mobility. Through Sofomo, he has successfully bridged the principles of skilled engineering and sustainable business. Gautam was one of the select entrepreneurs from the country invited by NASSCOM at their 25th Anniversary celebration with PM Narendra Modi.

PKS Sarma



Dr. P.K.S. Sarma - Head Technical (Discovery & Product Development), Biotechnology Industry Research Assistance Council (BIRAC). Dr. Sarma has seventeen years of industry research and two years of science management experience. His expertise includes Identifying discovery compounds/technologies that are of commercial and social benefit, due diligence for early stage technologies, anticipating future needs in priority areas and plan for research & translational activities, strategizing translational activities from research to product development and providing networking support to industry, funding agencies and academia. Prior to joining BIRAC, Dr. Sarma worked as Director-Medicinal Chemistry/Synthesis at Jubilant. He obtained his Ph.D from University of Hyderabad & Post-doc from Queen's University, Belfast. His domain Expertise includes Medicinal chemistry, organic synthesis, methodology development, parallel synthesis, total synthesis of natural products & process development and has functional expertise in leading and collaborating on multidisciplinary discovery teams. His accomplishments include ~80 patent applications, 10 publications, three reviews and three poster presentations in ACS meeting. Dr. Sarma's name was mentioned in the inaugural edition of Marquis's Who's Who in Asia







Arvind Savargaonkar



Arvind Savargaonkar is Managing Director, Concept Integrations (I) Pvt. Ltd. Arvind has professional experience spanning over 25 years in the fields of Medical Electronics, VLSI technology and Embedded Software Development. Arvind completed his B.E. from College of Engineering, Pune (COEP) and M. Tech. in Solid State Technology from IIT Chennai. He received the Gold Medal for academic excellence in his M. Tech. course. Arvind has worked for Indian Telephone Industries (ITI), Bangalore and C-DAC, Pune with the pioneering teams in Micro-electronics & VLSI technology. Arvind founded Concept Integrations (India) Pvt. Ltd. in 1993 for indigenous development and manufacturing of Medical Electronics products. The critical care products developed at Concept include PC-based ECG Machines and Multi-parameter Patient Monitoring Systems. Concept is also involved in development of Tele-Medicine and e-Health solutions for home health care and rural health care. Concept Integrations has recently been acquired by Cura Healthcare, Chennai.

Dyaneshwar Shelke



Dr. Dnyaneshwar shelke is a Chief Operating Officer for the Maharashtra Emergency Medical Services (MEMS) project at BVG India Ltd. Before coming to BVG India Ltd., he was COO of the EMS for Goa state. He has also worked as a Sr. Partner, Emergency Medicine Learning Centre and Program Director- Post Graduate Program in Emergency Care (Stanford- EMRI initiative) at Hyderabad, India. Dr. Shelke holds a Masters Degree from London South Bank University in Health Services Management. He also holds a Certificate of Global Business Leadership certification, from Harward Publishing, SSL and U 21 Global University, Singapore. He has attended an International Visiting Scholar program in Emergency Medicine at Stanford School of Medicine, Stanford University, USA. From 2007 onwards, he is the Regional Faculty for Asia Pacific Region on behalf of American Heart Association, USA and from 2010 onwards he is member of Global Development Committee for International Trauma Life Support Organisation, USA. Dr. Shelke is life member of Society for Emergency Medicine, India and is a member of NAEMSE association, USA and Indian Society for Trauma Care (ISTAC) India. He is also Founder Member of Society of Emergency Medical Services, India. Dr. Shelke has been engaged in various EMS related activities since last 12 years. He has participated in various EMS conferences all across the world as Delegate, Faculty and Speaker.

Aparna Shrotri



Aparna Shrotri has been a Professor at Dept of Obstetrics & Gynecology, B. J. Medical College, Pune. She is currently visiting faculty at Maharashtra University of Health Sciences. She is Member and Chairperson of Institutional Ethics committees of various medical and research institutions. She has several national and international publications to her credit. She is also master trainer for training programs in reproductive health for Govt of Maharashtra.

Premnath Venugopalan



Dr. V. Premnath Founding Director – Venture Center and Head, NCL Innovations. He holds a B.Tech. from the Indian Institute of Technology - Bombay and a Ph.D. from the Massachusetts Institute of Technology, USA. He has also been a Chevening Technology Enterprise Fellow with the Centre for Scientific Enterprises, London Business School and Cambridge University, UK. He brings with him considerable experience in technology development and commercialization, working with start-up companies (in Cambridge-UK and India) and engaging with large corporations on research and consulting projects as project leader.

SIIP Fellows

Apoorva Bedekar



Apoorva has done Biomedical Engineering from Mumbai University and Post-graduation in Bioengineering from Imperial College, London, UK. She has worked with a Start-up where she did market and patent research, signal processing and sensor testing, communication protocol development and clinical validation. She aspires to be a socio-prenuer capable of building sustainable solutions in the field public health.

DSS Chaitanya



Chaitanya is BIRAC Social Innovator under the Social innovations Immersion Program at Venture Center. He has completed his Masters in optometry and vision sciences from University of Hyderabad. He has clinical exposure in hospital settings and an understanding of challenges faced by practitioners in effective eye care delivery. His areas of interest include optics, public health, Telemedicine, low cost portable technology development for effective health care delivery with emphasis on eye care.







Sarang Kulkarni	Sarang is currently BIRAC Social Innovator under the Social innovations Immersion Program at Venture Center. An electrical engineer by training, Sarang wants to put his education to use for developing low-cost sensors, biomedical monitors and other technologies that can be used widely in India. He is particularly interested in low-power electronics and his current long term interest is in developing sensors that give an insight into the workings of the human body in response to various stimuli.
Amrita Sukrity	Amrita is a Materials Engineering post-graduate and wants to establish a manufacturing ecosystem for commercialization of low cost medical devices. Prior to being BIRAC Social Innovator under the Social innovations Immersion Program at Venture Center, she has worked with Bosch in purchase team where her role required development and procurement of ferrous and non-ferrous materials. Her main interest lies in bio-mimic technologies and current interests include developing diagnostic devices for low resource settings.







ABOUT THE ORGANIZERS	
Di L	About Bioincubator The Bioincubator at Venture Center aims to nucleate and nurture technology and
BioIncubator at Venture Center	knowledge-based enterprises leveraging knowledge in the areas of biotechnology (biopharma, agrobiotech, industrial biotech, clean technology), biomedical engineering/ devices/ diagnostics, biomass value addition/ renewable fuels/chemicals/materials, bioinformatics, bio/medical services and related disciplines. Created with support from DBT-BIRAC under the Bioincubator Support Scheme. For more information, visit http://www.bioincubator.venturecenter.co.in/
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birac	Biotechnology Industry Research & Assistance Council is a new industry-academia interface and implements its mandate through a wide range of impact initiatives , be it providing access to risk capital through targeted funding, technology transfer, IP management and handholding schemes that help bring innovation excellence to the biotech firms and make them globally competitive.
ignite innovate incubate	For more information about BIRAC: www.birac.nic.in
	About Venture Center
VENTURE C E N T E R	Entrepreneurship Development Center (Venture Center) — a CSIR initiative — is a Section 25 company hosted by the National Chemical Laboratory, Pune. Venture Center strives to nucleate and nurture technology and knowledge-based enterprises by leveraging the scientific and engineering competencies of the institutions in the Pune region in India. The Venture Center is a technology business incubator supported by the Department of Science & Technology's National Science & Technology Entrepreneurship Development Board (DST-NSTEDB). Venture Center's focuses on technology enterprises offering products and services exploiting scientific expertise in the areas of materials, chemicals and biological sciences & engineering. For more information, visit http://www.venturecenter.co.in/
DM F	About Deenanath Mangeshkar Hospital and Research Center
**	DMHRC was established as not for profit hospital to cater people around Pune region. DMHRC has allocated beds in the hospital as free beds and free surgeries for poor patients are undertaken. Hospital takes an initiative in arranging free camps. DMHRC

also has a well equipped research department with a mission to promote basic and

clinical research. More information at www.dmhospital.org