

# PROSPECTUS FOR THE FELLOWSHIP OF THE CAL2CAL INSTITUTE (FC2CI)

CReATiviTI: *e*lectronic *i*nformation *v*ia *i*nternet

Center for **R**esearch **E**ducation **A**nd **T**raining In  
**V**arious **I**nformation & **C**ommunications **T**echnologies

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**CAL2CAL's Worldwide presence:**

Irvine, Washington, D.C., Kolkata, Toronto (Canada), London, Swansea (UK), Melbourne (Australia).



## CAL2CAL Institute

**Vision:** CAL2CAL Institute, through its Center for Research Education And Training In Various Information & Communications Technologies (**CREATIVITI**) intends to become a Center of Excellence for empowering professionals to effectively use Information and Communications Technologies, especially applied to healthcare, public health, e-governance and alternate energy domains.

**Mission:** CAL2CAL Institute is committed to creating a smart workforce for the 21<sup>st</sup> century through the Internet, Social Networking sites and also face-to-face classes *i.e.*, *Blended Learning*.

**Values:** CAL2CAL Institute shares values of its parent CAL2CAL group whose global social commitment is to develop alternative low-cost information systems and communication tools to empower the poor and challenged individuals to lead an equitable life.

### Faculty



#### **Prof. Supten Sarbadhikari**

MBBS, PhD, a physician and Biomedical engineer, has been a hardcore academician since the last 15 years and is regarded as a pioneer in spreading awareness of health informatics in India. He is the Founding Director of CAL2CAL Institute. With his past associations with the IIT, the Manipal group, the Amrita group and the PSG group, he has had a wide and varied experience in both healthcare and technology academia.

A Fellow and Faculty of the PSG-FAIMER South Asia Regional Institute – an Educational Leadership development program for South Asia, in collaboration with the FAIMER (Foundation for Advancement of Medical Education and Research) Institute, Philadelphia, has been the Chair, Education Committee and Chair-Elect for Health Level Seven India. He has been the Course Coordinator and Co-Developer for the first ever Masters Degree on Medical Informatics from an Indian University at Amrita University. Has also been offering online courses on Health Informatics from PSG Institute of Medical Sciences and Research.



#### **Gora Datta**

Founder of CAL2CAL Corporation and conceiver of CAL2CAL Institute feels that now it is the time for CAL2CAL to give back to the Community what we have learnt and acquired over the last decade and half, as an effort of Corporate Social Responsibility (CSR). As HL7 Ambassador he has been lecturing globally for more than a decade.

He says that as an individual and as a group, we believe in improving the individual and society through education.



#### **Mark Shafarman**

Recognized industry expert in healthcare information and Past chair of HL7.org and more recently a course coordinator of HL7 eLearning Course. As past Chairman of HL7 (2004-05) and chair-elect in '03 and immediate-past chair in '06 (all HL7 Board positions), Mark was instrumental in taking HL7, a standards development organization, global! Chief Standards Officer of CAL2CAL, over the past 25 years,

Mark has become leader and innovator in healthcare informatics. His career path has included policy, management, conceptual and technical work in healthcare applications and healthcare information standards. Prior to that Mark was the Applications architect in ORACLE Healthcare Applications group.



**Chris Lynton Moll**

CEO of CAL2CAL Australia and Quality & Certification Advisor (CAL2CAL group), has extensive management experience in the healthcare industry, particularly in Pathology and Information Technology. Chris' expertise is in healthcare messaging, project management, information system implementation and healthcare education and training. Chris has held executive positions of Chief Scientist, Chief Information Officer (CIO), at the Royal Hobart Hospital, Director CCeH and CEO, CAL2CAL Australia.



**Abdul Malik Shakir**

Co-Chair of the HL7 Education Committee, Co-Chair of HL7 Implementation Committee, and member of the HL7 Architectural Review Board. Chief Technical Architect of CAL2CAL is a recognized industry expert in healthcare information management. His information technology experience spans more than 30 years including 25+ years in healthcare. His professional experience includes development of enterprise information architectures, data warehouses

/ business intelligence applications, systems integration solutions, and expertise in electronic data interchange standards.



**Dipak Kalra**

MD, PhD is the International Clinical Expert in eHealth Research & Standards to CAL2CAL, Professor and Director of the Centre for Health Informatics & Multiprofessional Education (CHIME), University College London Division of Population Health and a former London GP. Consultant Healthcare Informatics Standards, International Clinical Expert in eHealth Research & Standards, CAL2CAL

Europe Ltd. He is a consultant to the NHS (England) on clinical user requirements, information modeling, clinical data structures and archetypes, terminology binding and confidentiality management.

**BACKGROUND:**

The **Rotatory Intercontinental Fellowship of the CAL2CAL Institute** is designed to introduce candidates to the broad range of practices and sub-disciplines within the field of information and communications technologies (ICT) applied to real life problems. Such internships are available throughout the year, and shall be designated and assigned at the discretion of the Director of the Institute.

While ICT projects are similar in many ways to other types of projects, they pose unique challenges for the managers and organizations that undertake them. ICT project management is particularly challenging because of various factors like: (i) the rapid pace of technological changes occurring in the ICT field, (ii) the invisible nature of software, (iii) the ever-present pressure to add new features and functionality to systems, and (iv) the difficulty of managing the organizational changes that accompany most ICT implementations.

## GOALS:

- To train energetic men and women to apply ICT tools to real life problems – Capacity building for each Fellow to manage or participate in complex projects and work with project stakeholders.
- To create a cadre of smart workforce who have knowledge, skills and attitudes to solve real life problems through ICT-enabled Project Management. They can also serve as on-going resources for each other.
- To prepare professionals who would promote judicious application of ICT tools to bring in a positive behavioral change in the society.

The students will gain:

- Valuable experience working in the CAL2CAL group.
- Extensive experience to complement the ICT skills being gained at university.
- Familiarity with the workings of large ICT based organizations across the globe to benefit future career.

## CURRICULUM:

A multidisciplinary curriculum and syllabus spread over **12 months (Basic) or 24 months (Advanced)** will focus on the following:

Understanding the constraints (infrastructural, cultural, political, financial, educational, and technological) under which health care is provided globally; Strategic planning; Development Communication; and Research.

By the end of the course, each participant will have acquired hands-on experience in applying the new concepts and techniques to produce a quality project plan.

### Detailed Curriculum:

There will be a mixed portfolio of theory and reflective portfolio that will include real-life projects as assignments.

They should undergo one or two introductory modules from CAL2CAL Institute: <http://cal2cal-institute.wikispaces.com/Courses>

For encouraging all-round development, the students are also strongly encouraged to choose online courses from among the relevant modules offered by **CHIME**: <http://www.chime.ucl.ac.uk/study/modules/>

Additionally they may also enroll for the HL7 e-learning course: <http://hl7india.org/education.html>

(Standards: Problems and opportunities different versions tools – HL7 v2.x, 3.0 CDA R2)

However, for that additional Course Fees have to be paid to CHIME and HL7 India.

The hands-on assignments will also include the following:

- Understand the scope of the problem being addressed, from the user/client perspective
- Literature review (critique some publication after searching)
- Review and validate project objectives
- Project management – environmental socio-technical learning (management of the projects in real life environments and social conditions)

- Healthcare dimension of ICT projects
- Establish a multi-functional project team
- Define the framework by which team members will work together
- Requirements analysis user exposure – clinical – hospital administrative policymakers
- Functional and Technical specifications
- Develop the work breakdown structure (WBS) and assign ownership to each task
- Produce a schedule that can be managed by critical path and float
- Technical development – various technologies
- Refine estimates and finalize resource requirements
- Implementation of hardware and software
- Develop risk management plans
- Track, assess and communicate project status
- Manage issues, changes and additional risks
- Conduct close-out reviews and communicate key learning
- Report writing / Project Proposal following a critique
- Project evaluation and Quality Assurance
- Preparation of user manuals and exposure to staff educational programmes, business and behavior change, and other adoption strategies

Upon completion of the course, students should be able to attain the following Learning Objectives:

- Apply general project management competencies to ICT projects.
- Apply the techniques and develop the documents related to ICT project management.
- Understand how to apply different life-cycle models to design ICT projects.
- Understand the nature of projects that plan plan-driven and agile development methodologies.
- Identify ICT project risks and develop risk mitigation strategies.
- Identify cases of ICT project escalation and de-escalate troubled ICT projects.
- Understand how the organizational environment can facilitate ICT project success.
- Understand how to facilitate learning in and learning from ICT projects.

In a nutshell, the Fellowship will:

- Inspire ideas for appropriate technological solutions to healthcare issues;
- Guide the students in the development of global health technologies that are responsive to care constraints

## DURATION / COMPENSATION:

As an Intern, students will work at the CAL2CAL group labs (**6 months each in the 2/4 labs in USA, UK, Australia and India**) at least 40 hours per week and will participate in all aspects of work: requirements management, designing, implementing and testing. S/he will also complete a term project, to be agreed upon in advance by the supervising staff member and the fellow. The internship project will be formalized in an Internship Prospectus, to be prepared by the appointee and submitted to the Director along with all required application materials prior to commencement of the internship. **The Interns may receive nominal financial compensation to take care of their living expenses and free accommodation will be provided.**

## REQUIREMENTS:

Students interested in applying for the C2CI Fellowship should:

- (i) Be 4-year Graduation certificate holder, of Computer Science/Engineering, or 4-year diploma certificate holder in any ICT subject from Government recognized institutes, or Graduate in any subject with Post Graduate Diploma (one year) in any ICT subject, followed by at least 5 years of job experience in ICT development and /or applications.

OR

- (ii) Be healthcare (medical, dental, nursing, physiotherapy or pharmacy) graduates, who have exposure in managing digital hospitals or in designing, development and maintenance of Healthcare ICT systems.
- Be able to work independently, thoroughly, and with attention to detail;
- Efficient administrative/organizational skills;
- Concern for detail and accuracy, and producing professional results;
- Enthusiasm for and openness to unforeseen opportunities a must.

## COURSE FEES:

For 1-year Course (Basic):

INR ` 10,00,000/= (US\$ 20,000) + To-and-fro Airfare for posting in the overseas lab (to be paid by the student during the booking of tickets)

For 2-year Course (Advanced):

INR ` 20,00,000/= (US\$ 40,000) + To-and-fro Airfare for posting in the overseas lab (to be paid by the student during the booking of tickets)

## APPLICATION PROCEDURE:

Before submitting your application packet, please ensure you have included the following:

- Completed and signed application form, with non-refundable Application fees;
- Cover letter briefly detailing interest, outlining qualifications, and project proposal;
- Updated Resume/CV specifically detailing how the candidate meets the fellowship requirements;
- At a minimum, 2 Letters of Recommendation (at least one academic, and one professional).

Please scan all required materials along with a Crossed Demand Draft in favor of "CAL2CAL (India) Ltd.", payable at **Kolkata, India (non-refundable application fees)** worth ` **5,000/= (Indian Rupees five thousand only)** or **US\$ 150.00** and send to the following address:

**Prof. S N Sarbadhikari, CAL2CAL Institute, CAL2CAL (India) Ltd., 408 Jodhpur Park, Kolkata – 700 068 Phone: (+91) 91590 32857**

**Also, email a scanned copy of the filled up Application Form to [supten@cal2cal.com](mailto:supten@cal2cal.com) for processing.**