



**TAPMI**

**T. A. Pai Management Institute  
Manipal - 576104**

*Research Seminar*

**“Cognitive Engineering in Medical Device Design for  
the Bottom of the Pyramid (BoP) market – the case of  
the Point of Care (POC) Malaria Detection Kit”**

*Speaker*

***Dr. A. Sivakumar***

T. A. Pai Management Institute, India

&

Technology University, Delft, The Netherlands

3.00 p.m. August 12 2009, Classroom No. F2, TAPMI New Campus

All are invited

## Abstract

*Medical devices that help in disease diagnosis are becoming crucial and popular in ensuring well being of the BoP consumers. In times of uncertainty, and to target the BoP consumers, there is a need to design devices in such a way that the cost of the medical device or the service from it is made more affordable. In designing a medical device with this specific goal, the product development process has therefore this aspect as an additional constraint. Point of care medical devices are gaining importance over central laboratory testing because of advantages like lesser time consumption, low cost, savings in laboratory manpower as well as others in the supply chain, minimization of lost or broken samples and errors in estimation. Point -of- care devices ensure better access to diagnostic medical services to the rural BoP market.*

*The objective of this study is to obtain design inputs for development of a portable malaria detection kit. Two major methods of cognitive engineering mainly cognitive task analysis and ethnographic analysis are used in the study. The study is descriptive in nature and acts as a case study for illustrating the use of these techniques for the design phase of a new Point of care medical device.*

### Contact:

Research Committee, T. A. Pai Management Institute

Email: [rpc@tapmi.edu.in](mailto:rpc@tapmi.edu.in)

Phone: +91-820-2701033

Log on: [www.tapmi.edu.in](http://www.tapmi.edu.in)