

❖ Name & Designation	: Mr. M. Sathish Kumar Paul.
❖ Address	: Physiotherapy, Dept. of Bio Medical Engineer, S.I.H.R. 7 L.C., Karigiri, Vellore-632106.
❖ Name of the International Conference/ Seminar/Symposium/ Workshop	: Appropriate Healthcare Technologies for Low Resource Settings-AHT-2014.
❖ Title of the abstract accepted	: 1. Moulded insole fabrication of foot deformities using computer homographic images (Oral). 2. Technical specifications for rehabilitation devices prescribed for leprosy affected. A review (Poster). 3. Tactile sensing fabric glove to predict peak palmer pressure and prevent early impairments in leprosy affected patients – 2 year follow up study (Oral).
❖ Date & Venue	: 17-18 th September 2014. London, UK.
❖ Money sanctioned	: ₹ 75,003/-
❖ Money reimbursed	: ₹ 67,000/-

Participation Report**New Development presented at the Training/ Workshops**

The 8th IET International Conference on the Appropriate Health Technologies for the developing countries provided the delegates with a great opportunity to learn about the key issues surrounding healthcare provision in the developing world and to network with fellow workers.

The conference also gave an overview about the recent trends and the available engineering solutions to meet the healthcare problems of developing countries. The conference was helpful in understanding on what makes medical devices and services fit for purpose in the developing world.

The conference helped me to have an overview and learn about the recent advancements on the mobile health (m-health) technologies. The working of the smart phone based "sleep apnoea monitor", "manual respiratory monitor", "smart blood pressure system" which was demonstrated in the conference could be modified and can be used for monitoring patients in rural areas of India. The smart mobile phone based remote monitoring systems would change the outlook of patient's health care in the area of screening and diagnosis a major way if developed and implemented in India.

The "smart hand pumps" used in rural areas Kenya and Bangladesh help prevent wastage of water and in monitoring the quality of the water used by the people in rural areas.

The different methodologies (evidenced based, considering the individual perspective) used in training the Biomedical technicians, Nurses of the rural areas of the African countries could be well adopted and be used for health workers working in rural India.

The low cost device (pedbarograph) has been developed in Bangladesh for identifying the high pressure vulnerable areas in a diabetic foot. The device gave perspectives on how the low cost basic screening devices could be developed.

New Development resulting from the Training/ Workshops (200 words)

The Conference helped me build and develop networks with international equipment developers, potential users, technology commissioners and suppliers. I was able to personally interact and get the expert advice from academic and industry professionals in outlining the operational realities of healthcare in a developing country environment. The conference was a platform to explore the reality for healthcare service users and adapt products to meet their needs.

The need I could envisage in developing countries would be to develop appropriate, affordable, sustainable, quality equipment, supplies and support for both in development and emergency situations.

The technology I plan to design and develop would help the common person affected by leprosy to identify the high plantar and palmar pressures and develop orthosis for the same. The orthosis which would be developed through the reconstruction of Computer Tomographic (CT) images would reduce the time of fabricating an orthosis to a greater extent. This conference also helped me identify potential ways to market the product which has been designed by our team. The orthosis developed would prevent the leprosy affected patients from developing new impairments and reduce disability in a remarkable way.

Name of the Publication in case your work is recommended for Publication

The following papers will be published in the official IET Conference Proceedings which is identified by an International Standard Book Number (ISBN) and recognized as a commercial publication. The videos of the proceedings would be available on IET.tv website.

1. Tactile sensing fabric glove to predict peak palmar pressure and prevent early impairments in leprosy affected patients - two year follow up study
2. Moulded insole fabrication for foot deformities using computer tomographic images
3. Technical Specifications for Rehabilitation Devices Prescribed for Leprosy Affected – A Review

Participants contribution to the training/ Workshops (100 words)

As the participant of the 8th IET International Conference on the Appropriate Health Technologies for the developing countries I was able to showcase the affordable health care technologies which have been developed in India. It was an opportunity for me to present my works to the international community working in the field of Affordable Health Care Engineering. The papers I presented were

1. Tactile sensing fabric glove to predict peak palmar pressure and prevent early impairments in leprosy affected patients - two year follow up study
2. Moulded insole fabrication for foot deformities using computer tomographic images
3. Technical Specifications for Rehabilitation Devices Prescribed for Leprosy Affected – A Review