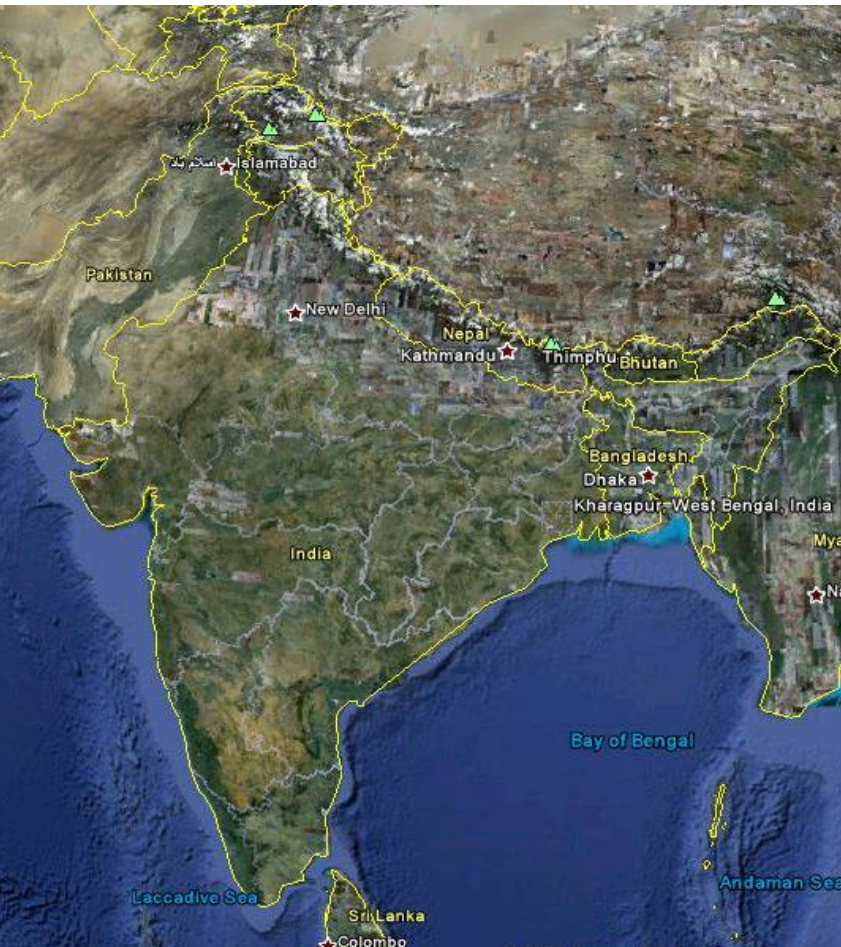


Project Report

UKIERI
UK-India Education
and Research Initiative



Dr. Amreesh Chandra

*Department of Physics and
Meteorology*

*Indian Institute of Technology
Kharagpur*

Kharagpur-721302, West Bengal, India



Title of the Project

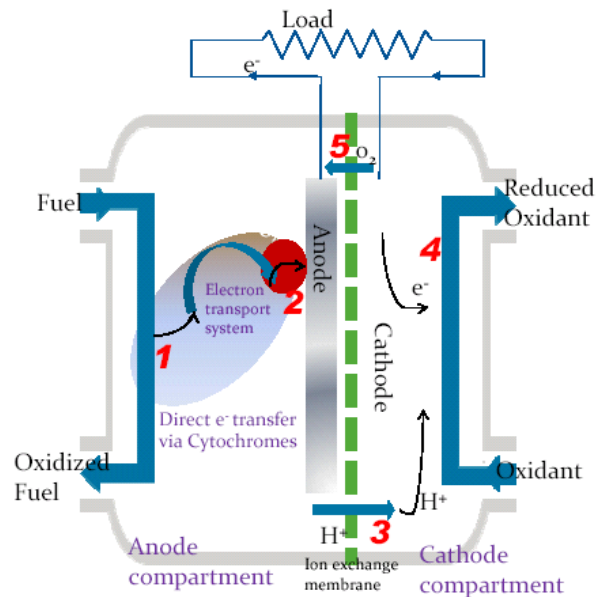
UKIERI
UK-India Education
and Research Initiative

*Use of Nanomaterials in
Smart Energy Systems*

Institute Involved

*Indian Institute of Technology Kharagpur,
Kharagpur, West Bengal, India
and
University of Surrey, Guildford, U.K.*

Objective of the Project

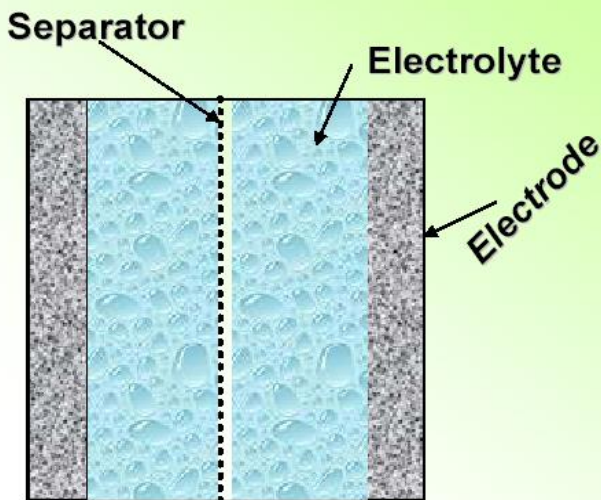


Development of Advance Nanomaterials for Smart Energy Systems

.....

Supercapacitors &

Microbial Fuel Cells



Project Outreach

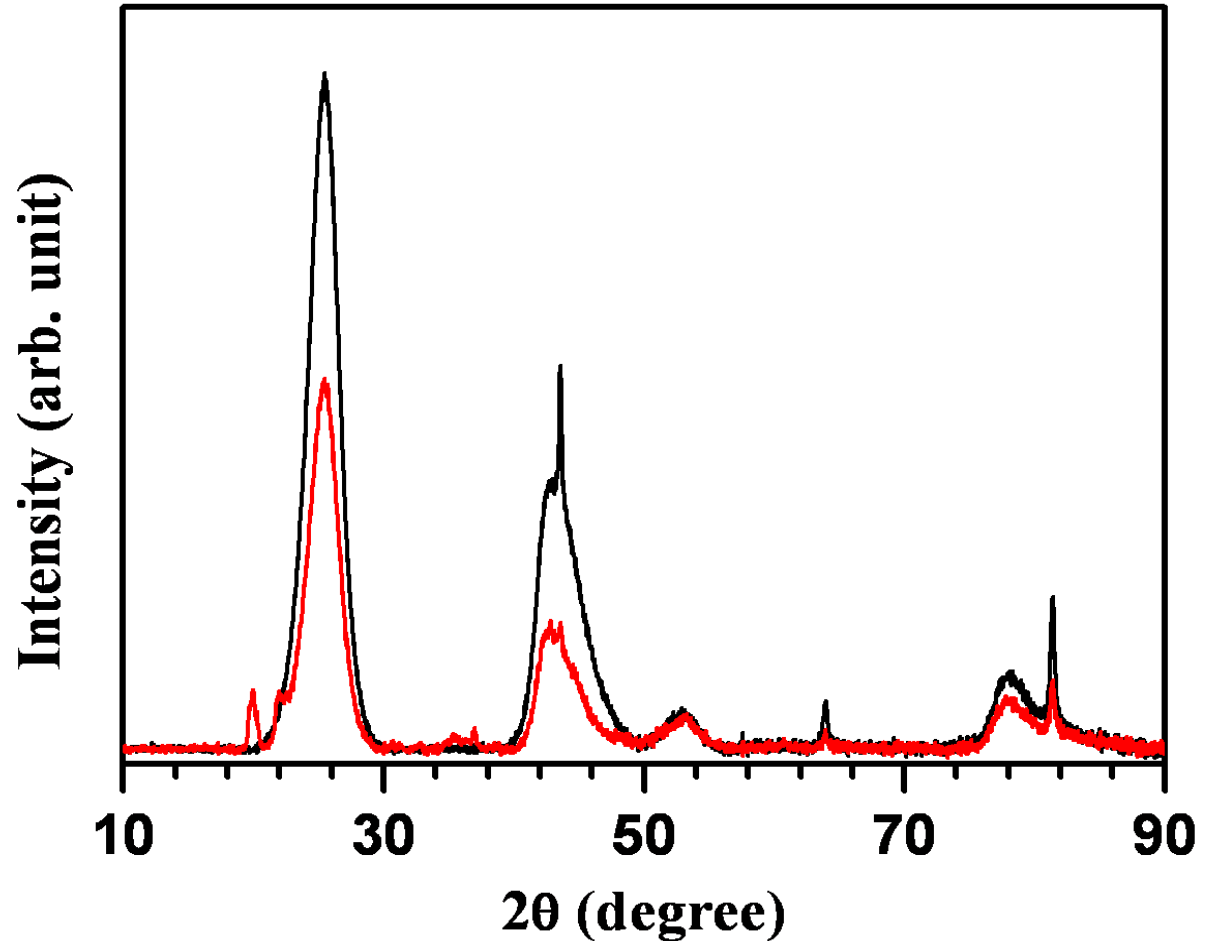
<p>No. of exchanges under the project (including academic staff and students)</p>	<p><i>Total: 4</i></p> <p><i>Student : 1</i></p> <p><i>Academic Staff: 3</i></p>
<p>No. of joint publications / research papers</p>	<p><i>Under progress</i></p>
<p>Media mention / Press release</p>	<p><i>None</i></p>
<p>Workshops organised (please include details like no of participants/key people/Key speakers and way forward from the workshop)</p>	<p><i>None (as no separate funding is available for this kind of activity)</i></p>

Visits

- **Number of Faculty Members visited IIT Kharagpur, India: 2**
Prof. R C T Slade and Dr. Carol Lynam (Each for one week)
- **Number of Faculty Members visited University of Surrey, U.K. : 1**
Prof. Anil Kumar (For one week)
- **Number of Student visited University of Surrey U.K. : 1**
Arvinder Singh (For three months)

Outcomes of the Project

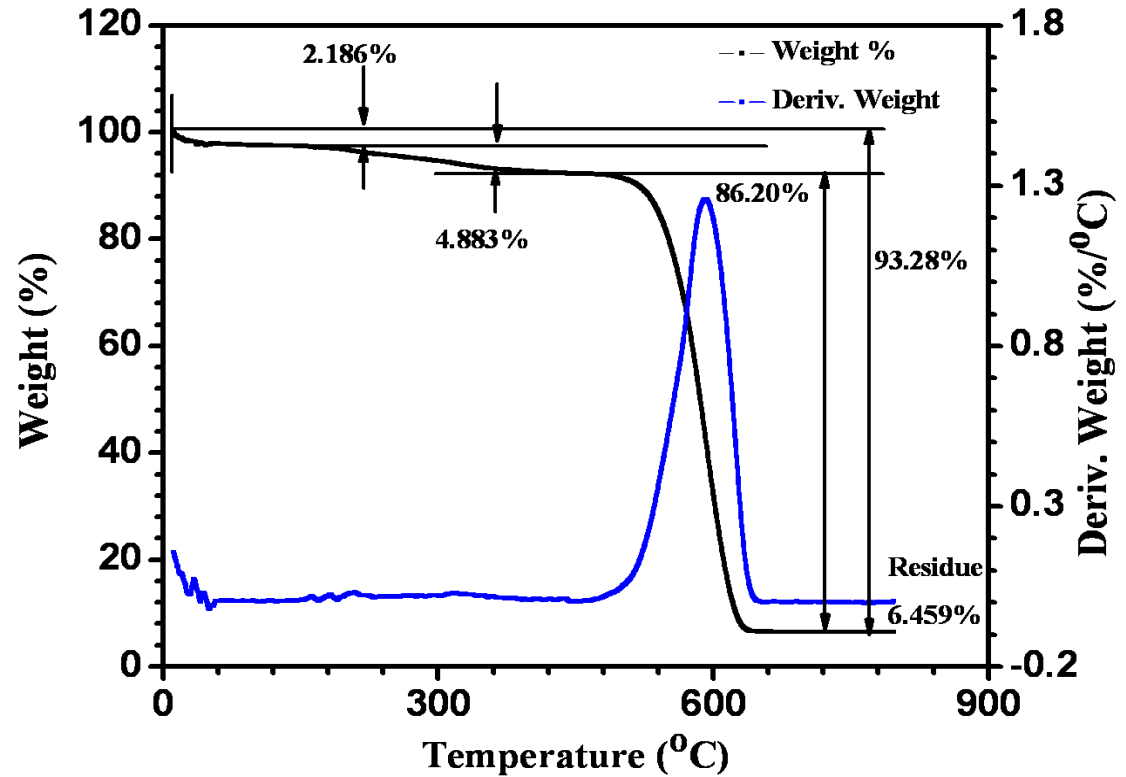
*Preparation
of composites
For
application in
energy
systems*



*X-ray diffraction pattern for Multiwall
Carbon Nanotubes based Composites*

Outcomes of the Project

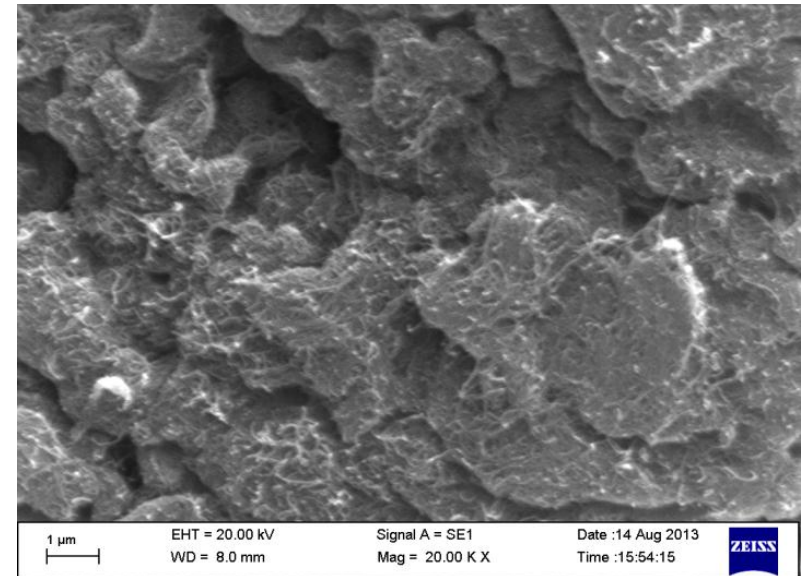
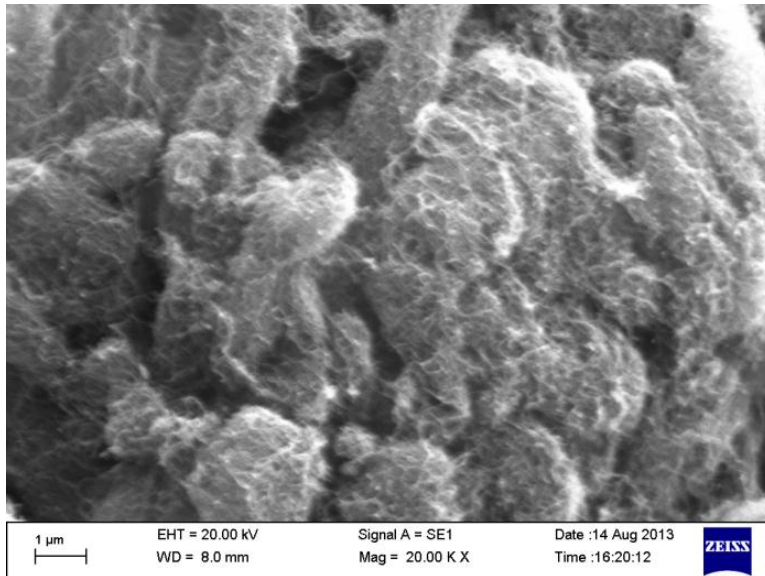
Carbon Nanotubes based Composites



*TGA curve for Multiwall Carbon
Nanotubes based Composites*

Outcomes of the Project

Multiwall Carbon Nanotubes based Composites



*SEM analysis for Multiwall Carbon
Nanotubes based Composites*

Success Indicator of the Project

- *Exchange visits*
- *Participations of more partners from University of Surrey (Contacts facilitated by P. I. from U. K.)*
 - Names of such contacts:*
 - Dr. Carol Lynam and*
 - Dr. Julia Percival*
- *New experimental techniques learnt by the student by visiting labs in University of Surrey, U.K.*

Sustainability of the Project

*We are in the process of
exploring possibilities to
generate funds
by
submitting a project to EPSRC, UK*

*Students exchange
and
regular discussion over video
conferencing*

Future activities planned

- *Exchange of samples*
- *Sample characterizations*
- *Device fabrications and performance analysis*
- *More visits by faculty members and students*

" Here in the place of that Hijli Detention Camp stands the fine monument of India, representing India's urges, India's future in the making. This picture seems to me symbolical of the changes that are coming to India....."

Pandit Nehru

Thank you for your attention!!

