

**SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY,
MANAGEMENT & GRAMOTHAN, JAIPUR**

**National Conference on “Emerging Trends of Research in Materials Science”
ETRMS-2011 (November 12-13, 2011)**

Report

Day-1 (November 12, 2011)

Department of Physics of Swami Keshvanand Institute of Technology has organized two-days National Conference on “*Emerging Trends of Research in Materials Science*” on **November 12-13, 2011**. The conference was in collaboration with University of Rajasthan, Jaipur and sponsored by DST, New Delhi. Also it was in association with Science and Technology Club of SKIT. The main objective of the conference was to provide a perfect platform to interact and exchange information and new advancements of the concerning fields among scientists, academicians, research scholars, students and experts from IITs, NITs and various Universities. The main emphasis was on dissemination of information, experience, research results and draw attention of young researchers towards the field of materials science.

The conference echoed a wide and overwhelming response with around 200 delegates across the country and more than 100 abstracts of research papers from all over India and beyond like Austria, Germany, UK, Greece and Belgium.

Inaugural Ceremony

The conference was inaugurated on 12th Nov., 2011 at 9:00 AM. Chief guest Prof. R.P. Yadav (Hon'ble Vice Chancellor, RTU) and guest of honour was Prof. G.D. Sharma (Jai Narayan Vyas University, Jodhpur and presently working as a Director Jaipur Engineering College, Kukas) graced the ceremony with their valuable presence. The function began on a pious note by offering prayers to Goddess Saraswati and lighting the lamp by the dignitaries, which in itself was the indication of the triggering of successful event.

Prof. S. K. Call (Principal, SKIT), extended hearty welcome to all the participants, delegates and invited guests. Prof. Y. K. Vijay and Prof. R. K. Jain (convener-ETRMS) elaborated the theme of the conference. He enlightened the participants with the insights of the true meaning and ideal journey of research. He stated the importance and necessity of high-quality research work.

Hon'ble Vice Chancellor of RTU Prof. R. P. Yadav said that such types of conferences are very beneficial for the students as these will help for advancement in research. He also focused on the need that new private engineering colleges should also be given permission to start Ph.D. programme. Sh. K. R. Bagaria (Director SKIT) in his inaugural speech discussed about the benefit of privatization which is taking place in the field of imparting quality education. He also appreciated the initiative of Prof. R. P. Yadav regarding the enrollment of Ph.D. students in private engineering colleges.

Vote of thanks was proposed by Prof. S. L. Surana (Director Academics, SKIT). He specially thanks Prof. Yadav (VC, RTU) for sparing his valuable time to attend the conference.

With this inaugural ceremony was adjourned for high tea. Ceremony was widely covered by the electronic and print media.

Technical sessions

After tea break technical sessions commenced. The entire conference deliberations were scheduled for 6 Technical sessions consists of 6 oral and 2 poster sessions. Each technical session was enriched with informative talks delivered from renowned speakers. The presentations and papers were evaluated by eminent session chairs from across the domain.

Technical sessions I

This session was chaired by Prof. Y. K. Vijay (Director-CDPE, UOR, Jaipur). First invited talk was delivered by Prof. G. D. Sharma (JNV University, Jodhpur) on **Applications of small molecules for bulk heterojunction (BHJ) photovoltaic devices and de sensitized solar cells (DSSCs)**. He explained the current status of BHJ solar cells based on solution processed small molecules and dye sensitized solar cells based on metal free organic dyes.

Second talk was delivered by Prof. Y. K. Vijay (Director CDPE, University of Rajasthan, Jaipur) on **Nano Engineering: Techniques and Characterization**". He explains how the nano science can change the direction of research.

It was followed by a lively discussion. In this session 5 contributed papers were presented by the respective authors. Discussion took place at the end of the presentations and adjourned for lunch.

Technical sessions II

Post lunch session was chaired by Dr. P.K. Khanna (Dy. Director, CEERI, Pilani). Prof. S. D. Dhole (University of Pune) delivered invited talk on **Synthesis and Diffusion of Metal Nanoparticles in polymers and glass by 6 MeV Electron Irradiation.**

This was followed by discussion. In this session 08 oral presentations and 15 poster presentations were presented. Discussion took place at the end of the presentations and adjourned for tea.

Technical Session III

Post tea session was chaired by Dr Rajneesh Kurchaniya (MANIT, Bhopal). Prof. P.K. Khanna, (Dy. Director CEERI, Pilani) delivered invited talk on **Low Temperature Cofired Ceramics Processing Technology.** He discussed about the fabrication process of the emerging low temperature cofired ceramics technology popularly known as LTCC. The essential facilities for LTCC technology were also discussed along with specific examples regarding the packaging of sensors. In this session 05 oral presentations were presented.

With high sounding three technical sessions delegates and participants were moved for dinner.

Day-2 (November 13, 2011)

Technical Session IV

Second day first session was chaired by Prof. S.L. Surana (Director Academics SKIT). Invited talk was delivered by Prof. Y.K. Vijay on **Hydrogen Energy Technology and Challenges.** His talk covered the innovative methods of hydrogen production through multi electrodes cell as conceptual on- board fuel production for vehicles, purification by polymer membranes and hydrogen storage in thin films and bulk metal hydrides as safe storage.

This was followed by discussion. In this session 06 papers were presented and adjourned for tea.

Technical Session V

Post tea session was chaired by Prof. R. P. Tiwari (Principal SBNIT, Jaipur). Dr. Lalita Ledwani (Manipal University, Jaipur) presented her talk on **Plasma Treatment on Polymers to improve the surface Properties.** She said that unlike liquid processes which penetrate deep into the

polymer, plasma produces no more than a surface reaction, which makes plasma treatment very effective for textile industries. This was followed by discussion. In this session 8 papers were presented and adjourned for lunch.

Technical Session VI

Last session of the conference was chaired by Prof. (Dr.) N.K. Banthiya(Head, ME, SKIT, Jaipur). Prof. R. P. Tiwari expressed his views on **Materials: Engineering Needs and Trends**. In this session 06 oral presentations and 20 poster presentations were presented. Prof. Banthiya expressed his views on **Energy critical elements: World and Indian Scenario**.

Valedictory Session

The grandeur of ETRMS-2011 fanfare came to its logical conclusion with the Valedictory session which brought together the organizers, speakers and delegates to retrospect and put forth their thoughts and ideas over the culmination of the event. Conferences were concluded on Nov.13, 2011 evening. In the valedictory function Prof.K.R.Soni (MNIT, Jaipur) was the chief guest. Dr. Reema Jain (Organizing Secretary-ETRMS) presented a detail report about the proceeding of 6 technical sessions of the conference and the papers presented therein. The awards for the best oral and poster were also given. Vote of thanks was proposed by Prof. S. L. Surana (Director Academics, SKIT). The efforts and the hard work of the organizers and the enriching role of delegates and speakers were all ceremoniously acknowledged and applauded. The inputs received at the session added to the glory and splendor of the conference. Heavy accolades were put forward for the eventful and deeply enriching deliberations that have added value and sophistication towards the creation of opportunities in the field of materials and their applications.

Event Photographs:

