




**Newsletter of IGSTC**  
**Volume 1 • Issue 1 • Jan-Mar 2017**

**Indo-German Science & Technology Centre**



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## New Director



Indo-German Science & Technology Centre (IGSTC), the flagship of Indo-German scientific cooperation was established by the Department of Science and Technology (DST), Government of India, and the Federal Ministry of Education and Research (BMBF), Germany to foster joint collaborations in science and technology.

Dr Roshan Paul has assumed the leadership of IGSTC as its new Director on 1st December 2016. Graduated in Textile Chemistry from the Institute of Chemical Technology (ICT), Mumbai in 1995, he holds Master's and

Doctorate degrees in Chemical Technology from the same institute. He has previously worked in the Spanish National Research Council (CSIC), Spain; Clariant, Mumbai; LEITAT Technological Center, Spain and Hohenstein Institute, Germany. Since 2015, he is an Invited Professor in the Faculty of Engineering at the University of Beira Interior, Portugal.

He is a Senior Life Member of American Association of Textile Chemists and Colorists (AATCC), USA; a Fellow of the Textile Association (India) (FTA); a Chartered Colourist (CCol FSDC) and a Fellow of the Society of Dyers and Colourists, UK; and a Chartered Textile Technologist (CText FTI) and a Fellow of The Textile Institute, UK.

## Completed 2 + 2 Projects

1. Compact linear fresnel reflector technology (CLFR) for thermal power generation and process heat



2. Developing sustainable transgenic crop plants tolerant for drought or a combination of drought and heat stress by manipulating ABA signaling and Ascorbate-Glutathione pathways



3. Imparting stress-resistance to crop plants by heterologous transfer of high altitude protection mechanisms



4. Biotechnological approaches to improve chickpea crop productivity for farming community and industry



5. Architecture-aware timing analysis and optimization of safety-critical automotive software (AUTOSAFE)



## Completed 2 + 2 Projects....

6. Flexible printed integrated disposable electronics (FLEXIPRIDE)



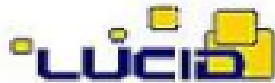
7. On chemoenzymatic synthesis and development of biodegradable structurally persistent core-shell nano-architectures for drug delivery application (NANOTRANS)



8. Development, characterisation and validation of nanoparticulates for the adsorption of hydrophobic uremic toxins in renal failure patients (NPORE)



9. Visualization of automated multi-sensor NDT assessment of concrete structures (NDT-DATAFUSION)



10. Integration of non-destructive evaluation based ultrasonic simulation (IN-DEUS)



## Director meets German & Indian Ambassadors

Dr Roshan Paul called on Ambassador Dr Martin Ney on 23<sup>rd</sup> January at the German Embassy. In the presence of Stephan Lanzinger, Head of the Science and Technology Department of the German Embassy, they discussed the role of IGSTC in enhancing bilateral collaboration and ways to further promote collaboration between German and Indian scientific institutions. Dr Ney was highly impressed with the work done by IGSTC in the last five years and was highly appreciative of the IGSTC's 2 + 2 programme.



On 9<sup>th</sup> March, Dr Paul also met Ambassador Mr Gurjit Singh and Counsellor (S&T), Mr Rajachandran Madhan at the Indian Embassy in Berlin. Ambassador and Dr Paul deliberated on future initiatives which could be taken for strengthening long term S&T programmes. Ambassador stressed the need to take up the high-level scientific projects and programmes between India and Germany with equal partnership. Ambassador wished Dr Paul and IGSTC the very best for future.



## Networking Dinner

IGSTC organized a networking dinner on 6<sup>th</sup> February at the German House, New Delhi to bid farewell to previous management and to welcome new management of IGSTC.

efficiently handling the IGSTC in its infant phase. Dr Mitra gave a brief introduction of new Director Dr Roshan Paul and talked about his illustrious career. Dr Paul also praised the work



Dr Arabinda Mitra, Indian Co-Chair, IGSTC extended a warm welcome to all the guests. He started his speech citing the importance of Indo-German scientific collaboration and IGSTC's growth as one of the flagship initiatives of Govt. of India and Govt. of Germany. He appreciated the work done by the previous Director of IGSTC Mr Arunashis Chakraborty and thanked him for ef-

done by previous Director and Manager and steering IGSTC to a progressive way forward. He stated the importance of IGSTC in funding socially relevant scientific projects. He acknowledged that the Indo-German collaboration is strengthening day by day and IGSTC will play a pivotal role in S & T collaboration between the two countries.

## Networking Dinner....

Mr Chakraborty cherished and reminisced about the time he spent at IGSTC. He thanked DST and BMBF for their unwavering support to IGSTC.

The event was well attended by German Embassy representatives, various Indo-German institution decision makers, CSIR scientists, IIT professors, DST officials, MNC executives,



Prof Ashutosh Sharma, Secretary, DST presented a memento to Mr Chakraborty for the exemplary work he has done as the founding Director of IGSTC. Prof Sharma also handed over a memento for former Manager Mr S S Sengupta for his invaluable contributions to IGSTC.

etc. Participants networked over dinner and had meaningful conversations.

Dr Paul thanked everyone for taking out their precious time from their busy schedule to participate in the event.



## Scientific Committee Meeting

The IGSTC Call 2016 for 2+2 grant applications was launched on 13 October 2016 at [www.igstc.org](http://www.igstc.org) and German Gazette, with 16 January 2017 as deadline for submission. This time, the Call was in the overall thematic area "Smart Cities" with three subtopics:

- Integrated water management and sanitation system for urban settings
- Energy efficiency in built environment
- Technologies for the utilization of waste (waste to wealth generation technologies).

The Call was also advertised in 'Current Science' 25 October 2016 issue. In addition, DST website and German Embassy site displayed the advt. IGSTC through its mailing list, publicized the Call through emails to

all possible stake holders-IITs, IISc, National institutes, IGSTC Project PIs, IGSTC Workshop participants, etc.

The Scientific Committee meeting for evaluating the applications was held on 16 February 2017 through a joint Video Conferencing with the experts from both the countries. Aim of the meeting was to shortlist the applications and select those consortiums that will be invited to submit in a full proposal.

Deadline for the full proposal is end of April. The second step of the evaluation by the Scientific Committee will be done during the 2nd week of June. The applicants will be invited to the meeting to present their project proposals (10 min presentation / 20 minutes discussion) before the Scientific Committee.

## Finance Committee Meeting

The 2<sup>nd</sup> Finance Committee (FC) meeting of IGSTC took place on 15<sup>th</sup> March, 2017 in Mühlthal, Germany. FC is comprised of Mr J B Mohapatra (Financial Advisor, DST & Indian Co-Chair), Dr Gerold Heinrichs (Head,

GB. In the meeting, a formal agenda was circulated amongst all members for deliberations and recommendations. The main responsibility of the Committee is to advise the IGSTC GB on prudent financial management



Asia/Oceania, DLR-PT & German Co-Chair), Dr Chadaram Sivaji (DST) and Mr Maximilian Jedemann (BMBF). As Mr Mohapatra could not attend the meeting, Dr Heinrichs chaired the meeting.

The Finance Committee consisting of the above members was constituted by the two Co-Chairs of IGSTC with a mandate to oversee and recommend finance related matters to the

policies and procedures to implement, including financial management and oversight.

Discussions focused on financials, audit report and budget estimates for IGSTC. Meeting was successful and fruitful with good and pertinent inputs from the participants. The recommendations of the Committee were reported to the GB by the Director.

## Governing Body Meeting

The 8th Governing Body (GB) meeting of IGSTC was held on 16-17 March, 2017 in Mühlthal, Germany. The present GB comprises of Dr Lothar Mennicken (German Co-Chair), Dr Arabinda Mitra (Indian Co-Chair), Prof Sandeep Verma (IIT Kanpur), Mr J.B. Mohapatra (DST), Ms Ratika Jain (CII), Dr Gadhe Padmanabham (ARCI), Mr Stephan Lanzinger (German Embassy), Prof Eberhard Abele (TU Darmstadt), Mr Clas Neumann (SAP) and Dr Gerold Heinrichs (DLR-PT).

Dr Mennicken extended a warm welcome to all members of the GB and the special invitees. He expressed his satisfaction over the progress IGSTC made in the past few years and wished the new management team to continue with the good efforts to take IGSTC into further heights. Dr Mitra, in his opening address thanked DLR-PT and BMBF for hosting the meeting in Mühlthal with excellent arrangements and hospitality. Both the Co-Chairs appreciated the efforts of Mr A Chakraborty (former Director), and Mr S S Sengupta (former Manager) in bringing up IGSTC to the current level.

Dr Roshan Paul, Director expressed his views on how to take IGSTC forward. He briefed the GB about the initiatives taken up since he resumed the leadership of IGSTC in December 2016. The GB deliberated in detail on several matters with decisions and suggestions on possible new initiatives/programmes. It discussed possible thematic areas for the upcoming 2+2 Grant Calls, Workshop Calls and new programmes. Both the Co-Chairs and Director thanked all the GB members, special invitees and other participants for their active participation, continued support, and suggestions for the constant improvement and functioning of IGSTC.

After the GB meeting all the participants visited "ETA-Fabrik", the initiative of Prof Abele at TU Darmstadt. The aim of the "ETA-Fabrik" is the construction of a model factory, which unites several interdisciplinary approaches to reduce the energy consumption as well as the CO<sub>2</sub> emissions of industrial production processes.

# Governing Body Meeting....





# Industry Interactions

IGSTC supports industry-driven or industrially relevant scientific projects which can benefit society on a mass scale. Industrially relevant projects can bring the idea from the lab to mass-market. Director, IGSTC with this vision constantly interacts with several German and Indian industries to brainstorm on



IGSTC among industrial partners and new stakeholders. Executives and key decision makers from MNCs like Thyssenkrupp, TÜV-SUD, Associated Fabrics, BASF, etc. had meaningful conversations with the Director. Director looks forward to having successful and mutually beneficial collaboration

new ideas of collaboration between IGSTC and industry. Interactions focus on new extra-mural programmes in conjunction with industry, workshops or symposia which can be taken up to enhance the visibility of

with industry to take forward IGSTC into new realms of success and ultimately benefit the society with affordable products especially in the context of India.



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