

Report of the visit

of

Dr. Prem Felix Siril

Associate Professor

Indian Institute of Technology Mandi (IIT Mandi)

Mandi-175005, Himachal Pradesh, India



To

Prof. Dr.-Ing. habil. Michael Türk

Karlsruhe Institute of Technology (KIT)

Institute for Technical Thermodynamics and Refrigeration

Engler-Bunte-Ring 21, Building 40.32,

76131 Karlsruhe, Germany



under

“KIT Research Alumni Reunion Grant”

From

DE Internationales / International Affairs

International Scholars & Welcome Office (IScO)

Adenauerring 8 (Building 50.25)

76131 Karlsruhe, Germany

Duration of the visit – 15.12.2019 to 08.02.2020

Scientific/Technical Outcome of the visit

The primary objective of the visit was to complete a review article on “**Supercritical carbon dioxide – A green medium for the synthesis of metal nanostructures for various applications**”. Some part of the same was written during the visit of Dr. Siril in the year 2015. However, the same could not be completed at that time. The review article was updated and thoroughly revised and submitted to **Green Chemistry** journal that is published by Royal Society of Chemistry, UK. We hope that the article would be accepted for publication.

The already existing collaborative research has been intensified during the visit. Joint work has been going on the synthesis of some catalysts at KIT using supercritical fluid reactive deposition and testing of their photocatalytic activities at IIT Mandi. After some preliminary studies, modification of the catalysts has been done and the samples are being carried to Mandi by Dr. Siril. Testing of the activities of these catalysts will be performed and we hope the results would be ready for publication soon.

One of the PhD students from Prof. Türk’s lab (Mr. Manuel Hohm) is planning to spend few months in the lab of Prof. Siril at IIT Mandi in the coming months. This will take the collaborations truly to the next level. Moreover, a Master student, Mr. Abhishek Goel from IIT Mandi has been spending few months at Prof. Türk’s lab at KIT at present with a DAAD exchange fellowship. Periodic review of the progress of his work was done jointly during the visit of Prof. Siril.

Prof. Siril also held discussions with Prof. Clause Feldmann from the Inorganic Chemistry Institute, KIT together with Prof. Türk. As both Prof. Turk as well Prof. Feldmann are collaborators already, it has been in principle agreed to work jointly with Prof. Siril. This is yet another achievement of the visit.

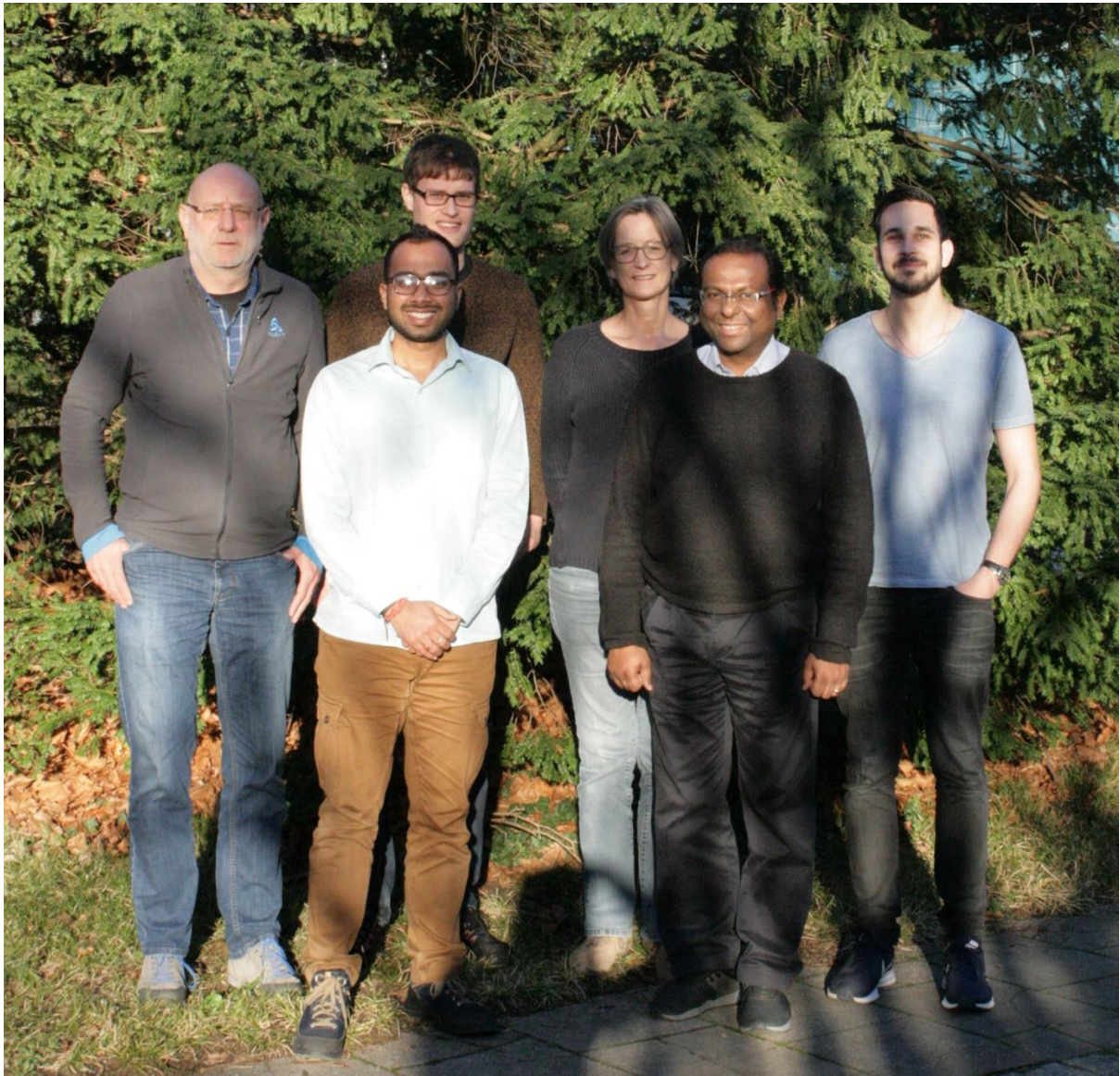
The track record of collaborative research established under the visits is expected to help the team to secure joint projects from transnational funding agencies. A joint project will be submitted as and when a suitable opportunity arises.

Other notable aspects

It was indeed a great cultural experience for Dr. Siril and his family (wife and two children) to experience the Christmas festivities in Karlsruhe. Old friendship with the family of Mr. Thomas Mutschler could be rekindled while new friendship has been made with a few.

Dr. Siril has also held discussions with Mr. Oliver Schmidt of the International relations Office of KIT so that the existing ties between KIT and IIT Mandi could be reinforced. Moreover, Dr. Siril has also held meetings with the representatives of TU9 head quarters in Berlin as well as the head of International relations of University of Stuttgart. A kick off meeting of the new IITs-TU9 project will be organised in Berlin towards the end of this year and it is expected to herald a new era in the relationship between the system of excellent technical universities from Germany and India.

Group Photo



From left : Michael Türk, Abhishek Goel, Manuel Hohm, Marlene Crone, Prem Felix Siril & Christian Schüßler.