



IIT Indore

# High-Pressure Synthesized Materials: A Chest of Treasure and Hints



Ministry of Human Resource Development  
Government of India

High-pressure science has undergone a renaissance, with novel techniques and instrumentation permitting entirely new classes of high-pressure experiments. Under high-pressure conditions, the 'superconducting periodic table' now extends to all classes of the elements, including condensed rare gases. 90 % of the visible substances in the universe are subjected to pressures, since the substance is primarily concentrated in large self-gravitating bodies – planets and stars. In this course we will discuss these new developments with a special focus on (1) innovation in high pressure science (2) possible applications to develop new technologies.

## Registrations open

To Register Please Visit

<http://gian.iiti.ac.in/register.php>



## Important dates

Course duration  
July 11- 19, 2016

Last date of registration  
July 5, 2016

## The Faculty

**Prof. Dr. Akira Iyo** is a Chief Senior Researcher at AIST, Tsukuba and a professor at the High Magnetic Field Laboratory, Osaka University, Japan. He is an expert in high pressure and high temperature synthesis of polycrystalline and single crystalline multilayered superconductors, topological insulators, magnetic materials, *etc.* He has invented more than 15 new superconductors using high pressure and high temperature synthesis technique, it is worth to mention about the invention of the multilayered non-toxic high  $T_c$  superconductors ( $T_c > 100$  K). He will educate about high pressure technique for materials synthesis under GIAN lecture series at IITI. He has published more than 200 papers including papers in Nature, Science, PRL, JACS, PRB, APL, *etc.*

**Dr. Parasharam M. Shirage** is Ramanujan Fellow at Indian Institute of Technology, Indore in Centre for Materials Science & Engineering. His research interests includes nanomaterials from mechanism to applications, superconductors, single crystal growth of advanced functional materials, materials under high pressure and high temperature, energy generation and storage, *etc.* He has published more than 100 research papers including JACS, PRL, PRB, APL, *etc.*

## Registration Fees

Participants from India:	
Industry/ Research Organizations:	Rs. 10,000:00
Faculties/Scientist:	Rs. 4,000:00
Students:	Rs. 2,000:00
SAARC Countries	US \$100:00
Non-SAARC Countries:	US \$500:00

Please find payment details at

<http://iiti.ac.in/GIAN/>

## Food & Accommodation

- Limited seats available in IIT Indore hostel on payment and first come first serve basis
- Registration Fees does not include food and accommodation

## For more details please contact

**Dr. Parasharam M. Shirage**  
Principal Coordinator  
Centre for Materials Science and Engineering  
Indian Institute of Technology Indore-453552  
INDIA  
Phone: +91-731-2438739, (M) 7875222331  
E-mail: [pms Shirage@iiti.ac.in](mailto:pms Shirage@iiti.ac.in), [gianshirage@gmail.com](mailto:gianshirage@gmail.com)

