The **Indian Ceramic Society student Chapter** in NITR conducted a two-day confluence, Mritika 2019 from 6th April 2019 to 7th April 2019. This conference is unique in itself as it involved various sessions starting from paper presentation to Quizzes and lectures on various domains of ceramics. The confluence witnessed some of the big shots like **TRL Krosaki, Kerneos aluminate, Aditya Birla Insulators, Tata steel, NALCO, CGCRI** and many more. It was a common platform for the students, scientists and the industrialists to contribute to the future of ceramics by leaps and bounds.

**PRE-FEST PREPS**

After the opening of the students’ chapter of InCerS in NIT Rourkela, the Ceramic department buckled up to prepare for the grand opening for the club, this happened to be what we later came to know as ‘*Mrittika*’. Students and Professors alike worked hard to promote recognition for the fest and the club and they were successfully in doing so. The executive body for the students’ chapter of InCerS for the academic year 2018-19 is as follows:

* Chairperson and founder- **Shivam Sharma**
* Vice chairperson- **Prashant**
* Secretary and co-founder- **Tanay Kumar**
* Treasurer- **Abhinav**
* Joint secretary- **Srija Mukhopadhyay**

The executive body along with the core team of Mrittika was involved in the extensive publicity of the event. The team managed to get decent sponsorships for the fest, there were a number of sponsors in all the categories which includes Platinum, gold and silver sponsors. The major sponsors or the **Platinum sponsors were Imerys, Sino-global, TRLK ROSAKI, Mahakoshal, ICON Analytical, and InCerS Jamshedpur chapter.**

# **The Inaugural Ceremony**

The inaugural ceremony started at 9:30 AM on 6th April soon after the registrations were done. The opening ceremony witnessed several distinguished guests and the convener of the conclave. The guests included **Prof S K Pratihar** (Convener), **Prof Sumit Kumar Pal** (Co-convener), **Prof S. Panigrahi** (DEAN SW), **Prof Ritwik Sarkar** (H.O.D), **Segi Idicula, Managing Director of Imerys** and **Dr. Sukumar Adak, Chief Operating Officer (COO) of Mahakoshal Refractories**, also he is the second HOD of Ceramics department of NITR). The Dean SW declared the fest open. The ceremony then witnessed the lighting of the lamp by the dignitaries, marking the beginning of Mrittika, 2019. This was followed by a video message from**Dr. K Muraleedharan, Director - CGCRI and President - Indian Ceramic Society**.

The guests were then felicitated with flowers and were warmly welcomed by the enthusiastic audience. The conclave then cherished a video made by **Aakash Jena and Sachin Dehury**, touring the Ceramic department, classes and workshops, all in one frame.

The confluence then progressed towards the lecture series by various eminent Scientists and Industrialists for different topics of Ceramics.

**THE GUEST LECTURES**

Experts came from different fields of Ceramic Engineering and delivered insightful lectures. The schedule and description of lectures was as mentioned in the table:

| **LECTURE** | **SPEAKER** | **DESCRIPTION** | **DAY** |
| --- | --- | --- | --- |
| 1. | Parag Bhargava, IIT Bombay | From powders to shapes, components, and devices through powder synthesis, shape forming and assembly | Day 1 |
| 2. | Segi Idicula, Imerys Aluminates | Imerys Calcium Aluminate speciality binders in India | Day 1 |
| 3. | Birendra Prasad, OCL | Opportunities and predictable changes in Refractory Technology | Day 1 |
| 4. | Atanu Ranjan Pal, Tisco | Building an advanced ceramic business, opportunities and threats | Day 1 |
| 5. | Saptarshi Sengupta, Elkem | Micro silica- use and value in refractory Castables | Day 1 |
| 6. | Goutam Bhattacharya, Imerys Aluminates | recent development of monolithic refractories | Day 1 |
| 7. | Himanshu Shekhar Tripathi, CGCRI | Refractory Research activities at CSIR-CGCRI | Day 1 |
| 8. | Sitendu Mandal, CGCRI | Manufacturing speciality glasses at CSIR-CGCRI for strategic application | Day 1 |
| 9. | Ranabrata Mazumder, NIT Rourkela | Development of lithium Silicates based ceramics for test blanket module of nuclear fusion reactor: addressing some critical issues from powder synthesis to pebble fabrication | Day 1 |
| 10. | Manish Kumar Singh, SinoGlobal Sourcing & Supply Ltd |  |  |
| 11. | Sukumar Adak, Mahakoshal Refractories | Recent development of refractories for Ferrous and non-ferrous industries | Day 2 |
| 12. | Ritwic Sarkar, NIT Rourkela | Corrosion of Refractory: A relook into the basics and few remedies | Day 2 |
| 13. | Sampad Mishra, RSP | Functioning of different steel ladles in RSP | Day 2 |
| 14. | Piyush Pandey, Hindalco | Properties and different applications of Hindalco made Alumina | Day 2 |
| 15. | Shantanu Kumar Behera, NIT Rourkela | Preceramic polymer derived cellular structures | Day 2 |
| 16. | Dhiman Banerjee, TISCO | Refractory Scenario: Present and future and its challenge | Day 2 |
| 17. | Atanu Suvrajit Pal, TRL Krosaki | new generation tap hole clay for blast furnace | Day 2 |
| 18. | Subal Mandal, TRL Krosaki | ABF top block: Design of suitable Refractory material | Day 2 |

# **Lecture by Prof. Parag Bhargava on Motivation**

The lecture started with a perceptible question if there is any need for innovation? Crowd was puzzled at the time. However, Prof. Parag Bhargava said that till the time there are problems there is a need for innovation. He talked about a number of social parasites lurking in our society and hindering our country’s economic development. The talk focused on the topics

* Malnutrition in India: a serious emergency
* Manual Scavenging
* Teaching as the unpopular profession amongst the youth
* Research status in the country
* Need for innovation in the country

He focused on the need for us as engineers to help solve the problem irrespective of the fact that it concerns people from other disciplines. He talked about the stagnant research status of the country and how our failures at getting patents for our work leads to a stagnation in the economy. He talked about how to motivate oneself to pursue the purpose one has found.   
It was one of the most successful lectures of the event. Students surged in a huge crowd to attend this very lecture which began at 6.30 and went on till 8.30 PM.

# **Panel Discussion**

With all the industrialists and scientists gathering in a two-day confluence it wouldn't be any better opportunity than this to know about the job perspectives in the ceramic industry. So, the conclave now headed towards a Panel discussion about the **Jobs in the ceramic society catering to all that the young minds** need to know about. The moderator of the panel was **Dr. Santanu Bhattacharyya** from the Ceramic Department.

The panel saw several intellectual industrialists and experts namely:

1. **Piyush Pandey**, alumnus, HINDALCO
2. **Amitabh Ray**, Aditya Birla insulator
3. **Sukumar Adak**, ex-faculty of Ceramic Department, COO of Mahakaushal Industries
4. **Dhiman Banerjee**, Tisco
5. **Atanu Bal**, TRL krosaki

The audience were enthusiastic for this session and were curious to explore the limits of the Ceramic Industry. Student had doubts regarding the placements, higher studies, jobs in the core field which were addressed by the experts satisfactorily.

# **The E-Exhibition**

The E-Exhibition had four exhibits:

**Future of superconductors**, **white graphene**, **running out of fossil fuels and the solutions**, **heat barriers in space shuttle**.

These topics were so chosen so as to display the advancements happened in Ceramics in the particular fields or where Ceramics holds better prospects in future.

Besides this, the **logo of ICS was glass etched** by the students of the Ceramics Department.

# **The FESEM Workshop**

The Field Emission Scanning Electron Microscope (FESEM) workshop was held in the Ceramics department. **Rahul Sarkar, Service Engineer from the ICON Group** came to teach students on how to use the microscope, how to capture images and other technicalities about the microscope.

# **Fun events**

*“All work and no play makes Jack a dull boy”*  
This saying goes well with Mrittika as well. Apart from all the exciting and insightful lectures, the Mrittika organizing team went ahead with organizing a fun event **Teka** **Teki** in collaboration with Chitraang.   
In the game, the participants were supposed to arrange tiles in a pattern. The student who did it the fastest received earphones as a gift.   
Besides this, a cultural night which was scheduled to happen on the night of 6th April but unfortunately got canceled owing to the rough weather.

**Hospitality and Management**

Mrittika witnessed an excellent showcase of talents and brought forward some adept managers, coordinators and speakers. The entire organizing team was efficient and skilled. The various teams involved were:

* Core team,
* Design team,
* Content team,
* Delegate affairs team,
* Photography team, and,
* The Faculty Procurement team

The registrations desks were set up for the delegates. All the delegates were given Dignitaries ID cards and complimentary gifts. The accommodation for the guests was arranged in the guest house. The guests received an amazing hospitality. Vehicles with NITR stickers were used to escort the guests from guest house to lecture halls and vice versa.

The attendees were provided with breakfast, evening tea, lunch and dinner. The lunch and dinner was arranged in the Technology club and the tea was served in the department itself.

# **The motivation behind the onset of the event**

Mrittika is the first event organized by the students' chapter of Indian Ceramic Society (InCerS). The magnitude of the fest and the huge turn up of the participants surprised the organizing team as well.   
**Shivam Sharma**, the founder of the students' chapter of InCerS gives his opinion down here:

*“In our second year, we were trying to find out why core companies of the ceramic industry don't visit our institute. So, I and the co-founder,****Tanay Kumar****under the guidance of our professors decided to start a students’ chapter of InCerS in our institute. For the same, forty-nine students of the department took up the membership. Next year, we visited the International Conference in Jamshedpur and we came to know about the wide scopes of the Ceramics industry and we decided to initiate the club work with something big, like a fest. This amazing and hardworking core team helped us in doing the same. We were able to generate a decent amount in the form of sponsorships. It seemed like that almost the whole department was helping in pulling off the event somehow. That is how we all feel that Mrittika 2019 proved to be a success.”*

# **THE ENDOWMENT**

NITR witnessed the best Mrittika possible in the first go itself, which is a result of the team’s toiling effort and the entire Department’s strive forward to shrug off the stereotypes.