

Delegation of Agni Mission Scientists visited Moradabad Handicrafts Cluster

22nd - 24th December 2021

Agni Mission is a collaboration driven by a programme of PSA (Principal Scientific Advisor) which comes under Prime Minister Science and Technology Innovation Advisory Council in partnership with Invest India - an executive agency of the Ministry of Commerce & Industry. The mission is focused on capturing the value of Indian technology and Indian innovation both from India's very rich start-up technology ecosystem.

Since one year, EPCH has been discussing the requirement of scientists' intervention for the Handicrafts sector. In consequent to this, scientists from different institutes like CSIR-IMMT, Bhubaneswar; IIT, Kanpur and Forge met virtually and discussed on the following topics:

- 3D technologies
- Pewter Technology and need of pewter Alloy
- Non Coal Furnaces
- Handicrafts Design Technology
- Automatic polishing machines
- Mould Engraving Technologies (CNC-Computer numerical machines)
- Photo & picture Framing Technology (PPFT)- The same was discussed during virtual visit to Saharanpur CFC.
- UV coating technologies
- Technologies to help development in glass-based handicrafts

The meeting saw the presence of Dr. Ajit Seth, distinguished PSA Fellow, Office of the PSA to GOI; Dr. Suresh Kumar, Scientist 'F', Office of the PSA to GOI; Mr. Harshan,



Assistant Vice President, Agni Mission; Mr. Kamal Soni, Vice Chairman, EPCH; Mr. Neeraj Khanna, Member COA-EPCH; Mr. Nabeel Ahmed, Member COA-EPCH; Mr. Hemant Juneja, Member COA-EPCH; Mr. Avdesh Agarwal, Co-opted Member-COA-EPCH; Dr. Rakesh Kumar, Director General, EPCH; Mr. R K Verma, Executive Director, EPCH; Mr. Gaurav Ohri, Images Inc.,



Moradabad; and Mr. Izlal Shamsi, Paramount Home Collection, Moradabad.

Later meetings of Agni Mission along with stakeholders of Saharanpur and Moradabad was organised to understand the pain points of the industry and how Agni mission can help the industry and address the need for MSMEs.

The Team Agni and EPCH after the several meetings with stakeholders on the problems of the cluster, planned visits of the delegation to Moradabad to see casting techniques and furnaces.

Accordingly, Team Agni consulted with scientists from CSIR-IMMT and IIT Kanpur and finalised the visit to Moradabad.

A delegation of scientists from CSIR-IMMT and IIT Kanpur visited Moradabad on 22nd and 23rd December 2021 with an objective to meet stakeholders and understand their problem areas in 'Casting and Furnaces'.

The team members were IMMT, Bhubaneswar- Dr. Anil K. Chaubey, Senior Principal Scientist, Area: Alloys and composite materials, casting, phase analysis, microstructure; Dr. Ajit Panagrahi, Senior Principal Scientist, Area: Mechanical deformation, sheet metal working, structure property; Mr. S K Mishra, Retired Chief Scientist-CSIR-IMMT, Area: Mechanical deformation, sheet metal working, structure property, IIT-Kanpur; and Dr. Koumudi Patil, Assistant Professor, Industrial Design, IIT. Other members were, Ms. Sushruti Tripathi, Assistant Manager, Agni, MSME technology facilitation; and Mr. Naveen Gaur, Assistant Director, EPCH and Regional Coordinator- Central Region.

On 22nd December, 2021, the delegation reached EPCH office, Moradabad. They were welcomed by Mr. Avdesh Agarwal, Co-opted member COA-EPCH and Coordinator Regional Committee Central Region and Mr. Naveen Gaur, Assistant Director and Regional incharge Centre Region. Mr. Avdesh Agarwal briefed them about the Moradabad handicrafts cluster, products manufactured and the condition of artisans. He also discussed about the technology required for the sector.



Thereafter, the delegation visited M/s Designco, M/s Venus Gifts, M/s Oliver McInroy & Co., Metal Handicrafts Service Centre (MHSC) and artisans working on coal furnace.

Visit to M/s Designco



At M/s Designco the delegation met Mr. Vinay Gupta, President of the company and discussed in detail about their problem areas. Mr. Gupta provided in-depth details of the industry and the handicrafts items manufactured in their factory. He further informed about technologies like lacquering, electrophoretic lacquering, powder spray coatings, etc. that are adopted to produce various handicrafts items. Mr. Gupta further informed that the company uses Zero water discharge treatment & ETP and fulfil all pollution control norms.



Visit to M/s Venus Gifts

At M/s Venus Gifts, the delegation met Mohd. Shakeel from the company. He informed how they work on stainless steel sheets as base metal to manufacture cutlery items for exports. He further informed about the automated systems for die making, cutting and forging of sheets as part of their manufacturing process. He showed their design collections and the process to make the moulds and techniques on material testing like, hardness tester, salt spray test, laser based composition analyser, and dish water tests.



Visit to M/s Oliver McInroy

On 23rd December, 2021 the delegation visited M/s Oliver McInroy, a leading exporter of decorative lamps and lighting accessories made of metal. Here, Mr. Hemant Juneja, Partner of the company, shared information about their products and the processes they are using in manufacturing. They use casting and sheet metal to develop their products.



The area they desired the intervention of technology was casting as they use a traditional system due to which they are unable to match the exact requirement of their buyers in

terms of casting. To see how the artisans work by using coal furnaces, how it effects them and how new technology, can intervene to help, the delegation also visited the artisans.

Visit to Metal Handicrafts Service Centre (MHSC)

The delegation also visited the Metal Handicrafts Service Centre, Peetal Nagri, Moradabad, to see facilities available at the centre for the handicrafts cluster of Moradabad. The MHSC is well equipped with the services - Research Testing & Calibration Laboratory (RTCL), Electroplating, Powder coating, lacquering, polishing and sand/shot blasting section with mass production capacities which are available for the exporters / manufacturers on no profit no loss basis. The team



visited facilities and discussed in detail with Dr. Ravindra Kumar Sharma, General Manager-MHSC.

Meeting with stakeholders

After visiting all facilities as per their schedule the delegation met with member exporters in the city, to discuss about areas where the cluster is facing problems on technology. Scientists from other institutions also joined the meeting on virtual mode. The members present during meeting discussed :

- Alternative material which can be cheaper
- Finishing technology
- Better and cheaper Casting technology
- Need of Industrial area

- Common Facility Centre
- Requirement of training and design centre
- Switching to electric furnaces instead of coal furnaces

The delegation discussed and noted the requirement of stakeholders. Mrs. Patil suggested that a Format will be developed through which they will ask stakeholders to inform about the technology currently being and the technology they need in making their products more appealing and competent. The scientists also informed the stakeholders that they have noted all the pain points of the stakeholders and the same will be discussed with their lab and initiate work towards solving these issues. ■