B.S. Abdur Rahman Crescent Institute of Science & Technology
Deemed to be University u/s 3 of the UGC Act, 1956

Report on attending the Endowment Seminar on

"Latest Development in Automative Plastic Industry, Machinery, Automation, and Moulds"

On

Friday March 1st 2024 at Hotel Savera – Mylapore, Chennai

Organized by

Indian Plastic Institute (IPI – Chennai Chapter)

Attended by

Dr.Basanta Kumar Behera

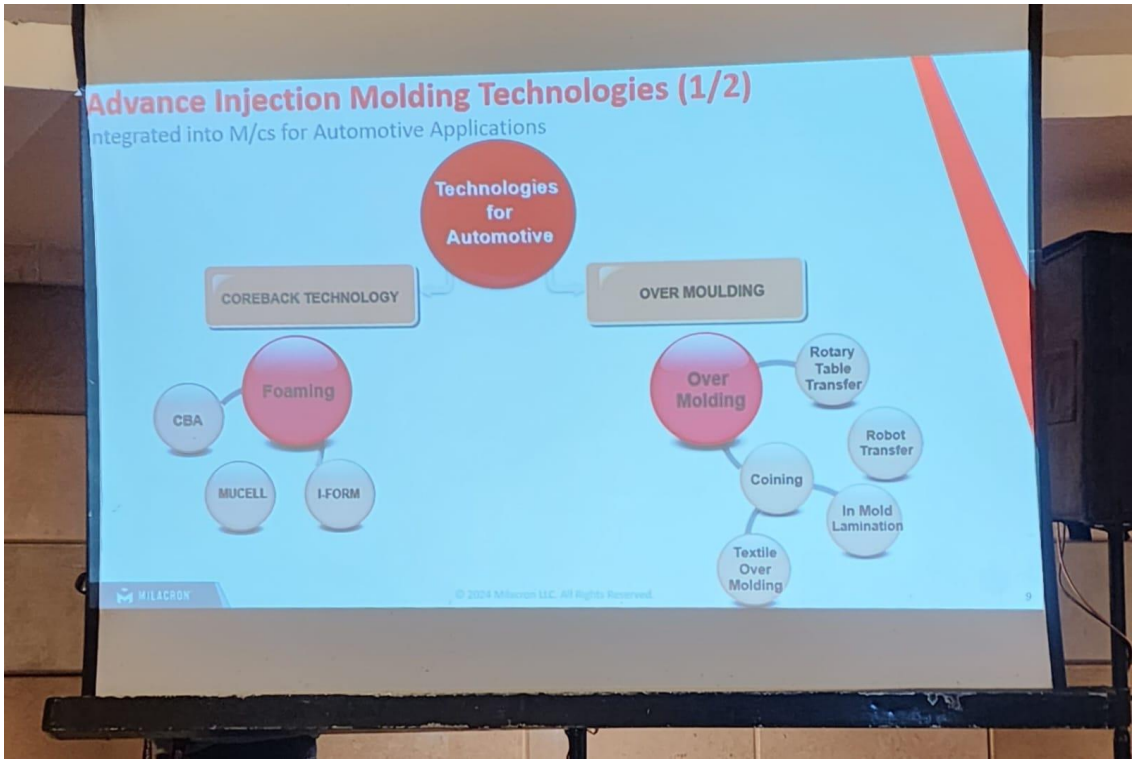
AP/Sr.Grade

Department of Polymer Engineering

B.S.Abdur Rahman Crescent Institute of Science and Technology

Chennai - 600048

- Dr.Basanta Kumar Behera, Faculty from the Department of Polymer Enginnering attended a seminar on **the "Latest development in automative plastic industry, machinery, automation, and moulds".**
- Mr.R.B.Sivakumar, Managing Director of Vignesh Polymers India Private Limited, Chennai addressed the challenges and opportunities for the automotive industries related to the plastic parts manufactured by injection moulding technique.
- Mr.Gaurang Shah, Managing Director of Madhu Machines and Systems Pvt.Ltd, presented the different innovative production techniques to reduce cyle time and to improve the productivity of polymer industries.
- Mr.JosepLuis Sole, the General Manager of CMSA, Spain, talked about the different solutions for automotive injection moulds and its design.
- Milacron India Pvt.Ltd is one of the leading injection mould manufacturer and its Regional Head, Mr.A.Muthuraman, talked about the various advancement in injection molding machines and how to reduce cost by minimizing the overall cycle time through automation.
- Mr.Chintan Mehta of Projects and Automation, Prasad group highlighted the importance of artificial intelligence and different automation techniques to reduce man power and improving accuracy in injection moulding process.
- The session was ended with a vote of thanks by Dr.S.Arun Kumar of Indian Plastic Institute (IPI), Chennai chapter.
- The outcome of attending the seminar was to know the different advancements in injection moulding sector and had few contacts with industry personals.


Advance Injection Molding Technologies (1/2)
Integrated into M/cs for Automotive Applications
Technologies for Automotive
COREBACK TECHNOLOGY
OVER MOULDING
Foaming
CBA
MUCELL
I-FORM
Over Molding
Rotary Table Transfer
Robot Transfer
Coining
In Mold Lamination
Textile Over Molding
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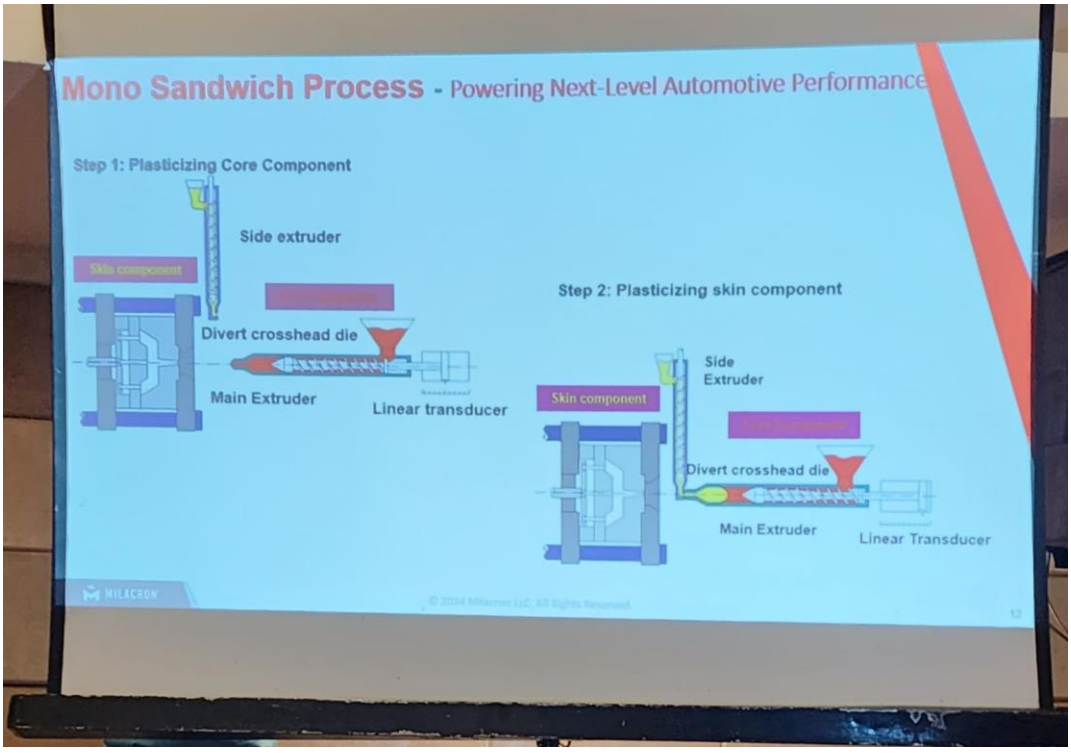
Mono Sandwich Process - Powering Next-Level Automotive Performance
Step 1: Plasticizing Core Component
Side extruder
Skin component
Divert crosshead die
Main Extruder
Linear transducer
Step 2: Plasticizing skin component
Skin component
Side Extruder
Divert crosshead die
Main Extruder
Linear Transducer
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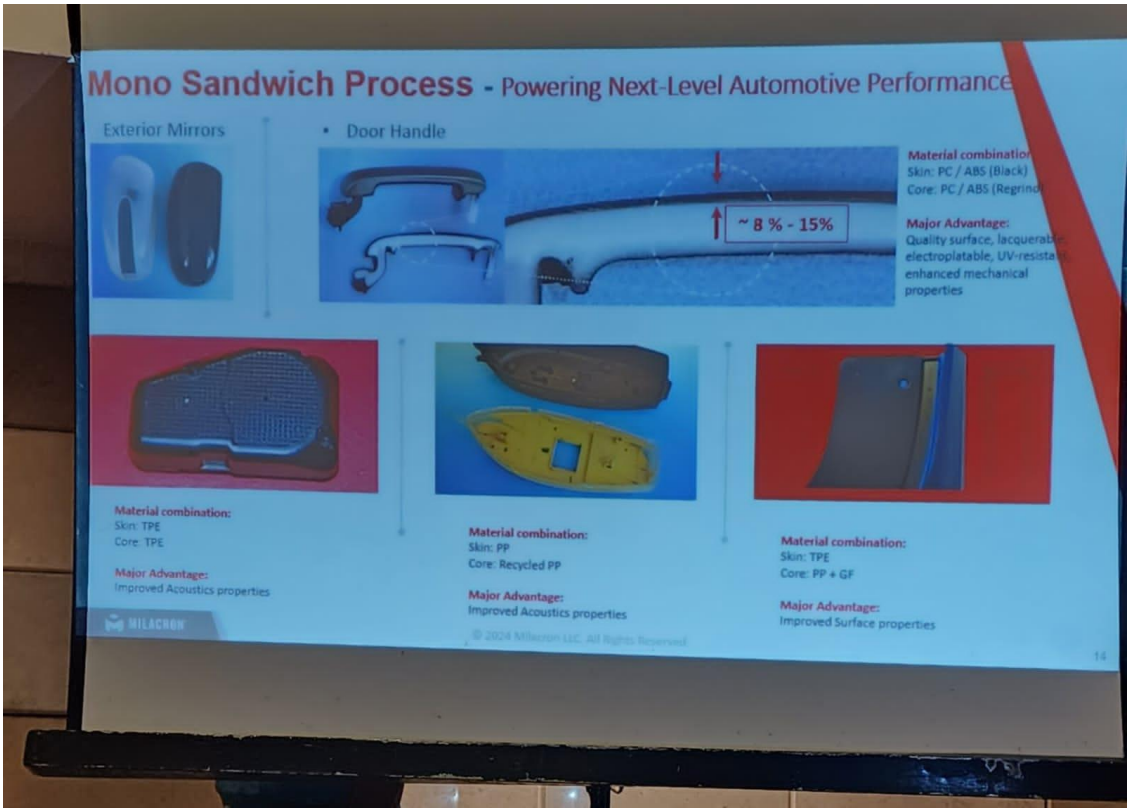
Mono Sandwich Process - Powering Next-Level Automotive Performance
Exterior Mirrors
Door Handle
~ 8 % - 15%
Material combination:
Skin: PC / ABS (Black)
Major Advantage:
Quality surface, lacquerable, electroplatable, UV-resistant, enhanced mechanical properties
Material combination:
Skin: TPE
Core: TPE
Major Advantage:
Improved Acoustics properties
Material combination:
Skin: PP
Core: Recycled PP
Major Advantage:
Improved Acoustics properties
Material combination:
Skin: TPE
Core: PP + GF
Major Advantage:
Improved Surface properties
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WHY AUTOMATION?
INDIAN PLASTICS INSTITUTE

Dr.Basanta Kumar Behera (middle) is with Mr.JosepLuis Sole, the General Manager of CMSA, Spain (Left), and Mr.Gaurang Shah, Managing Director of Madhu Machines and Systems Pvt.Ltd (Right)

- Dr.Basanta Kumar Behera requested to the regional head of Milacron Pvt.Ltd Mr. Muthraman to arrange a guest lecture on the advancement of Injection moulding machines for the students of B.Tech Polymer Engineering and Mr.Muthuraman told to send a request for the same.
- Dr.Basanta Kumar Behera had a discussion with Mr.Suresh Ponraj, Sr.Technical Consutant, SIMCON India, a software supplier for plastic flow analysis used for simulation purpose.

Faculty Attended the Program **HoD/PE**

Dr.Basanta Kumar Behera **Dr.S.Shamshath Begum**