Philosophy

➢ To attain National and International visibility for dissemination of knowledge in the field by way of teaching and demonstrate the capability of enhancing it by research in the field.

➢ To demonstrate centre of excellence by exploring frontiers of Advanced Materials.

➢ To grow with global trends, emerges as a world’s one of the leading organizations for its Advanced knowledge base and cutting edge research contributions.
To link the human resource with the knowledge base in optimum utilization of the materials resources.

To attain world class excellence and visibility in knowledge dissemination through teaching learning process, research and development and offering expert solutions to technological problems.

To integrate human resource with highest attainable level of knowledge on materials with a goal to welfare of mankind.
Motivation

• To produce **competent human resources**
• To cater **Nation wide Industrial requirements**
• To motivate students in pursuing R & D activities at the **frontiers of materials**
• To generate, impart and support students **to become leaders** in metal and materials based industry
A modest beginning- 1965
1st batch of 10 students- B.E Metallurgical Engineering (1969)
1st batch P.G. Diploma in Ferro Alloy Technology with 6 students (1971)
Academic Consolidation 1965-1995

• P.G. Diploma in Ferro Alloy Technology – M.Tech. in FAT & ASM

• Average 30 graduates/year occupying key positions in steel plants TISCO/TELCO/SAIL etc

• Collaboration with R & D organization: IGCAR, DMRL, NML, BARC, NAL

• Collaboration with National Institutes: IIT’s (Madras, Kanpur, Mumbai)/ IISc B’lore
Academic Consolidation 1995-2000

- First break through and visibility on National level: UK – India RECs Project
- 40% weightage on Materials
- State of art basic facilities on Materials Characterization: INSTRON, SEM, EDAX, Thermal characterization.

- 2002
  - Course title changed to B.Tech. Metallurgical and Materials Engineering.
  - Beginning of R & D activities

- 2004
  - Starting of New M.Tech (Materials Engg), TEQIP-1: Augmentation of existing Research Facilities
Projects Leading to quality UG/PG Project

India-UK REC Project
Curriculum Development
Materials Engineering Center
Faculty training in Materials Engg.

Interaction with UK scientists
Interaction with IGCAR Kalpakkam

IGCAR Kalpakkam Interaction
(2003- 2006)
M.Tech Projects in the areas of Mechanical Metallurgy, Corrosion, Material Science
MoU with VNIT (2006) for joint collaborative projects

World bank funded TEQIP Project
Infrastructure/Equipments
Training & Community Services

Center of Excellence in Material Testing (2008)
Creep Lab
Future Aims:

Present Academics: To be recognized at international level as centre of excellent graduates & postgraduates students

Current Industrial requirements and R & D: To compete with world class requirements

BRIDGING THE GAP
Undergraduate: philosophy, strengths and the challenges

- **Science and mathematics component**
- **Department core component,**
- **Department elective component,**
- **Lab component (departmental as well as core)**
- **Humanities component**
Post graduate: philosophy, strengths and the challenges

- Department core component,
- Department elective component,
- Lab component (departmental as well as core)
Strength/ Weakness/Challenge

- Industrial Projects related to different materials with local industries
- Collaboration with local Steel, Cast Iron, Aluminium, Plastics, Ceramics based industry
- Syllabus design based on Process Metallurgy
- Centrally located so easy accessible to R & D labs and manufacturing Industry (Hyderabad, Pune)
- Industrial visits to meet subject needs
Subject demands from UG students on Computational modeling & Simulation, Advanced Characterization Technique, Semiconductor Technology

Strength/Weakness/Challenge

- Subject demands from UG students on Computational modeling & Simulation, Advanced Characterization Technique, Semiconductor Technology
Strength/ Weakness/Challenge

• M. Tech students from Mechanical Engineering background
• M.Tech Lab component: Only two
• Faculty to teach subject on Process modeling & simulation??
Open for discussion..??
Thank-you