

OBJECTIVES

Development of Nanostructured materials including coatings; Development of Micro ECM (Electrochemical Machining) and micro EDM (Electric Discharge Machining) for manufacturing micro components; To develop a setup for production of metal matrix composites especially Aluminium Matrix Composite (AMC)

ACTIVITIES**A. RESEARCH AND DEVELOPMENT**

Synthesis of various nanostructured materials including coatings.

Optimization of process parameters in pulse plating, high energy ball mill, μ -ECM and μ -EDM and casting of AMC.

Ph.D/ M.E / M.Tech / M.Sc. / M.Phil Projects.

B. CONSULTANCY AND TESTING

- Development of materials and coatings for specific applications
- Transfer of pulse plating technology to plating industries
- Provide consultancy for electroplating industries.
- Providing training for operation of μ -ECM, μ -EDM machines and high energy ball mills

C. DEVELOPMENT

- μ -ECM and μ - EDM
- Pulse plating setup for plating of various materials
- AMC production setup

**D. FACILITIES AVAILABLE**

- High energy ball mill
- Pulse plating setup
- Metallurgical microscope with image acquisition system
- Sample preparation facilities such as mounting press, polishing station etc.,
- μ - ECM Setup

Centre Head : Dr. R.M.Arunachalam
(Ext.No.716)

Team Members :

1. C. Shanthi
2. R. Sasikumar
3. A. Srinivasan
4. R. Viswanathan
5. M. Srinivasan
6. R. Sureshkumar
7. M. Siva