

**List of on-going projects sanctioned by the Office of the Principal Scientific Adviser to the Government of India**

- **Under Automotive Sector**
  - Low cost engine management system for small engines.
  - Developing light weight automobile body components using Advanced High Strength Steel and modern metal-forming processes.
  - Telematics pilot project vehicle tracking and control systems at Koyembedu bus terminal, Chennai.
  - Intelligent and interactive telematics using wireless technologies for transport system.
  
- **RuTAG, Uttarakhand**
  - Improvement of water mills.
  
- **RuTAG, Tamilnadu**
  - Natural Dyes - Conversion to powder form.
  
- **RuTAG - IIT, Delhi**
  - Improvement of Biogas Conversion Kit.
  - Evaluation and Standardization of Animal driven water pump.
  - A comparative study of bullock driven tractors.
  
- **RuTAG - IIT, Kharagpur**
  - Enhanced Yield Bio-gas plant Projects.
  - Modernization of Ambar charka
  - Sisal fibre Extraction
  - Identifying and sorting of Raw Tussar -silk yarns by automated computerized systems.
  - Earthworm separator and Vermi Compost Drying
  - Quality improvement and Mechanization of the manufacturing process of 'Madur' mat
  - Solar Dryer for Mahua Flower
  - Sabooi Grass Rope making
  
- **RuTAG - IIT, Madras**

- Micro Hydel Power Plant use of Pump As Turbine (PAT)
- Low power Wind Mill
- Cost Effective Cloth Diaper Set and Nappy Pad
  
- **RuTAG - IIT, Roorkee**
  - Light weight Dandi for Pilgrims.
  - Recharging of Drying springs in Mountain Regions by using Isotope Hydro - Geochemical Techniques".
  
- Project on the development of GaAs-Epitaxial Multijunction Quantum Well Infrared Photodetectors (QWIPs): Phase-II.
- Project on the Development of Test bed for evaluation of Quantum Well Infrared Photodetectors (QWIPs) array.
- To identify and document the High-End Technologies Developed Indigenously; Phase I - Pressured Heavy Water Reactor (PHWR) Technology.
- Up-gradation and Revitalization of Vasai Fish Processing Project
- Information Support System in Science and Mathematics for Rural Higher Secondary Schools
- Project on the Development of Micro-Cantilever based Sensors for the Detection of Vapours of Explosive Chemicals.
- Project on the Development of Aerosol Preconcentrator for use with Chemical Sensors.
- Project on the setting-up of an Ortho-CAD Network Centre for Endo-prosthetic Skeletal Reconstruction Systems.
- Project on the Development of Read-Out Integrated Circuit (ROIC) for 320X256 Quantum Well Infrared Photodetector (QWIP) arrays.
- Phase-II of the project on the development of LED materials and devices for Climate Friendly Energy Conservation.
- Project on the Fabrication and submicron tailoring of materials for photonics applications with ultrafast lasers.

- Scientific validation of Ayurvedic Rasayana Therapy : Studies to examine genomic stability correlates.
- Exploring functional genomics basis for medicinal properties (Dosha-balancing) of some plants used in Ayurveda.
- Evaluation of Narasimha Rasayana on DNA repair and immune profile in human subjects.
- Genomic variation analysis and gene expression profiling of human Dosha Prakriti based on Principles of Ayurveda.
- Immunological and metabolic effect of Panchakarma.
- Studies on biological effects of Ayurvedic formulations (Rasayanas and Bhasmas) using Drosophila model.
- Impact of R&D on Indian Chemical Industry - Current Status and Future Strategies.
- Impact of R&D on Indian Mining Industry Performance - Identifying the new priorities and strategic initiatives.
- Technological opportunities for distress mitigation in most seriously affected areas of Wardha District.
- A Comparative Study on S&T, Innovation and Development Strategies of China and Korea vis-à-vis India.
- Modelling of Thermally Induced Errors in CNC Machine Tools.
- Development of a New Model Using Dynamic Stress Profiles for A) Prediction of Bearing Residual Life and B) Deciding Optimal Condition Monitoring Intervals.
- Phase-I of the Project on the Performance Modelling of Free Floating Wave Energy Converter.