

**CURRENTLY ON-GOING R&D PROJECTS**

Sl. No	Year	Project Title	Research Organization	Objective of Project
1.1	2020-21	Design and Development of Inline Biomethane Enrichment and CO <sub>2</sub> Separation System	CSIR-CMERI-CoEFM, Ludhiana	Design and development of Inline Biomethane enrichment system, separation of CO <sub>2</sub> from biogas, Desorption and purification of CO <sub>2</sub> for further utilization, analysis of the methane enrichment and CO <sub>2</sub> purification.
1.2	2020-21	Interventions to Improve Performance of Combustion Systems in MSMEs	IIT Delhi	Improve performance of combustion systems in MSMEs (Micro, Small and Medium Enterprises) by use of state-of-art design methods, detailed three-dimensional engineering computational analysis and laboratory testing, along with reducing the fuel consumption and pollutant emissions and improving overall efficiency, also development of retrofit prototype of burner and modified furnace design for a compact, low emission , high efficiency combustion systems and to create improvement cases studies for the industry
1.3	2020-21	Performance evaluation of a bio gas Integrated Semi-Transparent Photovoltaic Thermal (SPVT) collectors (Bi-SPVT)	RGIPT, Amethi,	A. Increase in yield of biogas (Kg) of floating Bio-gas Plant by solar base thermal active SPVT heating to conserve fossil fuels to sustain an environment and the climate change during the harsh cold Indian climatic condition B. An overall energy analysis of the proposed biogas plant based on increase yield of biogas, additional solar thermal and electrical power C. Economical feasibility study of the proposed active solar heating of biogas plant for rural community applications
1.4	2020-21	Development of Encapsulated Asphalt rubber Pavement (EARPAVE) Product for Road Applications	IIT Tirupati	To develop an Encapsulated Asphalt-Rubber PAVement (EARPAVE) mixture and establish specifications vital for producing an enduring asphalt mixture suitable as maintenance strategy for pothole patching, new pavement construction with unconventional surface layers such as gap-graded structural layer and open-graded friction surface course systems.
1.5	2020-21	Design and development of a micro turbine combustor working on biogas	IIT Jodhpur & IIP Dehradun	To develop a biogas operated combustor for micro turbine. Micro gas turbines offer fuel flexibility, low emissions, better efficiency compared to diesel gensets at very low maintenance and running cost.