#### Lalgopal Das,B.E.(Mech.), MME, Ph.D.(Engg) Senior Principal Scientist, Advanced Design and Analysis Group

# **Research Work**

Design of Hydraulic Components of Smart Vertical submersible pump, DHI project

Design and Development of working prototype of small oil free air compressor for portable oxygen concentrator, SERB Project

Development Studies of 5 kW Gas Turbine Compressor set, CSIR-CMERI Project

Indigenous Technology Development for Offshore Placer Mining, CSIR project

Development of a Technology for Optimal Extraction of Locked Coal from Underground Mines Using Artificial Pillars (DeCoalArt), CSIR Project

Semi-automated Ginger processing technology for producing ginger flakes, CSIR project

Design and development of a Milk Curdling Machine, B. N. Das sponsored project

Design and Development of Building Debris Feeding System for the Crusher, CSIR-CMERI project

Design and Development of Mob Control Vehicle, carried out design and development of irritant spray system, tear smoke system and foam generating system for the mob control vehicle

Static Stress Analysis and Design Review Of Ball Mill, sponsored by Mcnally Sayaji Engineering Limited

Design and Development of Tractor Road Sanitizing Unit, CSIR –CMERI research work

## Publication

Das,L. G., . Rawat, M. K. and Kuri ,N., "Flow Analysis of a Centrifugal Slurry Pump While Handling Clear Water at Design and Off-Design Conditions," The 11th Asian International Conference on Fluid Machinery and The 3rd Fluid Power Technology Exhibition November 21-23, 2011, Paper ID: AICFM\_TM\_003, IIT Madras, Chennai, India

Das, L.G. and Murmu, N.C., "A Unified Design Methodology for Micro Gas Turbine", The 11th Asian International Conference on Fluid Machinery and The 3rd Fluid Power Technology Exhibition, November 21-23, 2011, Paper ID: AICFM\_TM\_008, IIT Madras, Chennai, India

## IPR

Samanta, P.; Das, L.G. and Murmu, N.C., Foil Bearing and Its Supporting Arrangements, filed on 30/03/2016

Samaddar, P. R., Sen, P. K., Das, L. G., Nandi Sarkar, M, Baiju A. V. G., A Water Jet Dredging Device, Filed to Indian Patent Office, New Delhi, (Patent Granted 17/09/2015 Granted Patent Number 268809 on 17/09/2015)

(c) Das, L.G., Maji, P. K., Chatterjee, A. and Hirani, H., Vehicle Mounted System and Method For Distributed Irritant Spray, filed on 06.03.2020 in Indian patent office,

(d) Das, L.G., Ray, R., Chatterjee, A. and Hirani, H., A piping system and a method for all round dispensation of gas/fluid filed on 12.10.2020 in Indian patent office,

### **Previous Experience**

Machinery Engineer, 30.12.1997 to 08.05.2001 in Larsen & Toubro – Chiyoda Limited, Baroda

Design Engineer, 01.06.1996 to 14.11.1997 in Radiant Industrial Services Pvt. Ltd., Kolkata

Engineer- Design & Development, 19.07.1993 to 31.05.1996, Worthington Pump India Limited, 24 Pgs(N),West Bengal

### **Research Interest**

Design, development and analysis of roto dynamic turbomachines like pumps, compressors and turbines

Design and development of positive displacement type fluid machine

Development of integrated small process plants and systems

Development of test set-up, experimentation and performance evaluation of fluid machines