Proposal for Minisymposium in the field of Computational Fluid Dynamics

Minisymposium Title: **Numerical Methods for Gas-Liquid Two-Phase Flow**

1) Principal Organizer: Byeong Rog SHIN (Changwon National University, Korea)
2) Co-Organizer: Takeo Kajishima (Osaka University, Japan)

Abstract:

In this mini-symposium we would like to discuss recent advanced numerical methods for gas-liquid two-phase flow such as cavitating flow, free surface flow, bubbly flows, water vapor condensing flow, chemical reaction flow, contrail, etc. Physical/mathematical modeling for two-phase flow, phase change model deal with evaporation and condensation, numerical techniques based on Eularian and Lagragian method, VOF, level set, two-fluid and homogeneous model, upwinding strategies, numerical schemes for low Mach number flow including preconditioning will be considered. Also, numerical examples applied to engineering flow problem encountered in turbopumps for rocket propulsion systems, industrial turbomachinery, hydrofoils, hydro-propulsion systems, fuel injectors, biomedical devices, fuel spray in internal combustion engines, sloshing tank and so on will be welcome.

1) Professor Byeong Rog SHIN
Department of Mechanical Engineering, Changwon National University
9 Sarim-dong, Changwon 641-773, Korea
Phone: +82-55-279-7509 Fax: +82-55-275-0101
E-mail: brshin@changwon.ac.kr

2) Professor Takeo Kajishima
Department of Mechanical Engineering, Osaka University
Yamadaoka, Suita, Osaka, 565-0871 Japan
Fax: +81 6 6879 7250
E-mail: kajisima@mech.eng.osaka-u.ac.jp