Professor Shuichi TORII/Department of Mechanical System Engineering, Kumamoto University, Japan

Data of Birth: January 27, 1960
Highest Degree: Ph.D. Mechanical Engineering, Kyushu University, JAPAN
Professional Specialty: Heat Transfer, Fluid DynamicsNumerical SimulationProduction and Development of Renewable EnergyCombustion

Professional Experiences:

04/2003~present Professor, Department of Mechanical Engineering Kumamoto University, Japan
061993~3/2003 Associate Professor, Department of Mechanical Engineering Kagoshima University, Japan
09/1990~09/1991 Visiting Scholar, Department of Mechanical Engineering University of Michigan, USA
04/1985~08/1990 Assistant Professor, Department of Mechanical Engineering Kyushu University, Japan

Personal Introduction:

Shuichi TORII received the B.D. degree fromKagoshima University in 1983 and M.D. and Ph.D. degree from Kyushu University in 1985 and 1989, respectively, all in Mechanical Engineering. He then worked as the visiting scholar at University of Michigan, where he studied the solidificationand oxidizationin reactor using the experimental method and numerical simulation. In 1993, he became the associate professor at Kagoshima University, where he studied the thermal fluid flow transport phenomena for rotating machinery and combustion and the development of turbulence model. Since 2003, he currently is a Professor of Department of Mechanical Engineering at Kumamoto University. He focuses on production and development of clean Energy and renewable Energy, thermal fluid flow transport phenomena using nanofluids, advanced cooling device developmentwiththe use of nanofluids and development of new clean fuel with the aid of shock-wave.

1. Society and Educational Achievement

Editor, Japanese Society of Mechanical Engineering
Editor, Japanese Society of Heat Transfer
Editor, International Journal of Energy Research
Editor, International Journal of Transport Phenomena
Editor, Journal of Mechanics in Medicine and Biology
Editor, International Journal of Earth Sciences and Engineering
Editor,Journal of Flow Visualization and Image Processing

2. Academic Societies

Japanese Society of Mechanical Engineering

Japanese Society of Heat Transfer

Japanese Society of Experimental Mechanics

Japanese Society of Visualization Information

Society of Heating, Air-Conditioning and Sanitary Engineering of Japan

Chemical Engineering of Japan

Japan Institute of Energy

American Institute of Aeronautics Astronautics

American Society of Mechanical Engineering

Canadian Society of CFD

3. Achievements in Research

Research related to numerical and experimental convection heat transfer

Research related to laminar and turbulent flows in channel and closed cavity

Research related to computational fluid dynamics

Research related to development of new turbulence models invelocity and temperature fields

Research related to thermal propagation phenomenain nano-and micro-film

Research related to particle movement in fluid flow, i.e., multiphase flow

Research related to experimental and numerical diffusion flame

Research related to Renewable Energy and Energy Production using Biomass

Awards:

1. Excellent Presentation Award
International Symposium on Exo Topia Science 2007, November 23-25, 2007
2. Excellent Presentation Award
R'09 Twin World Congress, November 14-16, 2009.
3. Presidential Award for Research in Kumamoto University, May 10, 2009
4. Presidential Award for Education in Kumamoto University, May 10, 2012
5. Presidential Award for Research in Kumamoto University, May 10, 2012

Selected Publication list:

1. Shun MATSUDAandShuichiTORII
Development of the suitable combustor and combustion characteristic of biofuelsProceedings of The Yellow Sea RimInternational Exchange Meetingon Building Environment and Energy 2012, pp. 267-269, 2012.
The Yellow Sea RimInternational Exchange Meetingon Building Environment and Energy 2012, February3-5, 2012, Kitakyushu, Japan
2. Shuichi TORII and Wen-Jei YANG
"THERMAL-FLUID TRANSPORT PHENOMENA IN AN AXIALLY ROTATING FLOW PASSAGE WITH TWIN CONCENTRIC ORIFICES WITH DIFFERENT RADII"
Proceedings of 14thInternational Symposium on Transport Phenomena and Dynamics of Rotating Machinery, ID1125, pp. 1-8, 2012.
14th International Symposium on Transport Phenomena and Dynamics of Rotating Machinery, ISROMAC-14, February 27th -March 2nd, 2012, Honolulu, HI, USA
3. Shuichi TORII and Tasuhito Takakura
Fluid Flow Characteristics in Micro-Pump with the Aid of Peltier Devices and Thermal Expansion Material
Proceedings of The 8th KSME-JSME Thermal and Fluids Engineering Conference, GSF26-002, pp. 1-3, 2012.
The 8th KSME-JSME Thermal and Fluids Engineering Conference, Incheon, March 18-21, 2012.
4. Shun MATSUDA and Shuichi TORII
Development of the suitable combustor and combustioncharacteristics of biofuels
Proceedings of INTERNATIONAL ENGINEERING SYMPOSIUM 2012, pp.M1-2-1 –M1-2-3, 2012
INTERNATIONAL ENGINEERING SYMPOSIUM 2012(IES2012), March 5-7, 2012, Kumamoto University, Kumamoto,Japan
5. Shu-Min Tu, Shuichi TORII and Yang-Cheng Shih
The obstacle effect to the mixing efficiency in x-shaped micro channel
Proceedings of INTERNATIONAL ENGINEERING SYMPOSIUM 2012, pp.M2-4-1 –M2-4-5, 2012
INTERNATIONAL ENGINEERING SYMPOSIUM 2012(IES2012), March 5-7, 2012, Kumamoto University, Kumamoto, Japan
6. Hajime YOSHINO and Shuichi TORII
Heat Transfer Enhancement of Al2O3 Nanofluid Dispersed in Ethylene Glycol
Proceedings of INTERNATIONAL ENGINEERING SYMPOSIUM 2012, pp.M2-5-1 –M2-5-3, 201264

INTERNATIONAL ENGINEERING SYMPOSIUM 2012(IES2012), March 5-7, 2012, Kumamoto University, Kumamoto, Japan

7. Dao Danh Tung and Shuichi TORII
Heat Transfer Performance of a Multiple-Heat Pipe Cooling Device Using Pure Water and Alumina Nanofluid respectivelyas Working Fluid
Proceedings of INTERNATIONAL ENGINEERING SYMPOSIUM 2012, pp.M3-1-1 –M3-1-6, 2012
INTERNATIONAL ENGINEERING SYMPOSIUM 2012(IES2012), March 5-7, 2012, Kumamoto University, Kumamoto, Japan

8. Takato YAMAMOTO and Shuichi TORII
The Effect of Heat Transfer Plate Attached Acrylic Blocks near the Inlet & Outlet area of Plate Heat Exchanger
Proceedings of INTERNATIONAL ENGINEERING SYMPOSIUM 2012, pp.M3-2-1 –M3-2-4, 2012
INTERNATIONAL ENGINEERING SYMPOSIUM 2012(IES2012), March 5-7, 2012, Kumamoto University, Kumamoto, Japan

9. Caner SENKAL and Shuichi TORII Thermal Fluid Flow Transport Characteristics in Confined Channels withTurbulent Dual Jet Impingement
Proceedings of INTERNATIONAL ENGINEERING SYMPOSIUM 2012, pp.M3-3-1 –M3-3-4, 2012
INTERNATIONAL ENGINEERING SYMPOSIUM 2012(IES2012), March 5-7, 2012, Kumamoto University, Kumamoto, Japan

10. Giichi NAKAMUTA and Shuichi TORII
Study of Thermal Fluid Flow and Ventutri Effect
Proceedings of INTERNATIONAL ENGINEERING SYMPOSIUM 2012, pp.M3-4-1 –M3-4-3, 2012
INTERNATIONAL ENGINEERING SYMPOSIUM 2012(IES2012), March 5-7, 2012, Kumamoto University, Kumamoto, Japan