Curriculum Vitae

Associate Professor Dr. Ekachai Juntasaro

รองศาสตราจารย์ ดร. เอกชัย จันทสาโร

Mechanical Engineering (Simulation and Design),
Department of Mechanical and Process Engineering,
The Sirindhorn International Thai-German Graduate School of Engineering (TGGS),
King Mongkut's University of Technology North Bangkok (KMUTNB),
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BIRTH DATE/PLACE/CITIZEN

19 January 1967, Bangkok, Thailand.
Thai Citizen.

EDUCATION

Ph.D. (Mechanical Engineering)　　　　　　　　1997
Department of Mechanical Engineering,
Imperial College London,
London, England.
Thesis Supervisor: Dr. M. M. Gibson.

M.Sc. (Mechanical Engineering)　　　　　　　　1992
Department of Mechanical Engineering,
Imperial College London,
London, England.
Thesis Supervisor: Dr. M. M. Gibson.

B.Eng. (Mechanical Engineering)   1989
Department of Mechanical Engineering,
Faculty of Engineering,
King Mongkut's Institute of Technology Ladkrabang,
Bangkok, Thailand.

SCHOLARSHIP

The Royal Thai Government Scholarship for M.Sc. and Ph.D.
(Ministry of University Affairs: MUA 1)

EXPERIENCE

Head of Computational Fluid Dynamics Laboratory,   Jun 1997 – Oct 2008
School of Mechanical Engineering,
Institute of Engineering,
Suranaree University of Technology,
Nakhon Ratchasima,
Thailand.

Assistant Professor,   Feb 2001 – Feb 2006
School of Mechanical Engineering,
Institute of Engineering,
Suranaree University of Technology,
Nakhon Ratchasima,
Thailand.

Board Committee Member,   Sep 2001 – Sep 2007
Institute of Engineering,
Suranaree University of Technology,
Nakhon Ratchasima,
Thailand.

Assistant Director,   Nov 2001 – Oct 2005
Center for Scientific and Technological Equipment,
Suranaree University of Technology,
Nakhon Ratchasima,
Thailand.

Associate Professor,   Mar 2006 – Oct 2008
School of Mechanical Engineering,
Institute of Engineering,
Suranaree University of Technology,
Nakhon Ratchasima,
Thailand.

Associate Professor,   Nov 2008 - present
Mechanical Engineering (Simulation and Design),
Department of Mechanical and Process Engineering,

The Sirindhorn International Thai-German Graduate School of Engineering (TGGS),
King Mongkut's University of Technology North Bangkok,
Bangkok,
Thailand.

Associate Dean for Research and Academic Services,   Dec 2012 - present
The Sirindhorn International Thai-German Graduate School of Engineering (TGGS),
King Mongkut's University of Technology North Bangkok,
Bangkok,
Thailand.

TEACHING ACTIVITY

Postgraduate Level (M.Eng. and Ph.D.)

Advanced Fluid Mechanics
Computational Fluid Dynamics (CFD)
Turbulence Modelling for CFD

RESEARCH INTEREST

Unstructured Finite Volume Method for Computational Fluid Dynamics (CFD)
Transition and Turbulence Modelling with/without Analytical Wall Function
Turbomachinery Flow in Power Plants

GRANTED RESEARCH PROJECT

October 1999 – September 2000
        Computation of Compressible Turbulent Subsonic Flow towards a Numerical Wind Tunnel, SUT Research Fund.

January 2001 – December 2002
        Three-Dimensional Flow towards a Numerical Wind Tunnel, SUT Research Fund.

February 2002 – January 2005
        Development of CFD Software Package for the Simulation of Clean Rooms using Sequential and Parallel Computing Algorithms, NECTEC.

August 2004 - July 2007
        Research Project under Supervision of the Senior Scholar Professor Pramote Dechaumphai (The 2nd Time), Thailand Research Fund (TRF).

September 2007 - August 2010
        Research Project under Supervision of the Senior Scholar Professor Pramote Dechaumphai (The 3rd Time), Thailand Research Fund (TRF).

November 2008 – October 2010

Improvement of the Walters-Leylek Transition Model, CD-adapco, U.S.A. & U.K.

December 2009 – November 2011

Study of Transition Models in CFD toward the Best Practice for Industrial Applications, MTEC.

September 2010 – February 2012

Design of the Optimum Hydrofarm using CFD, Thailand Research Fund (TRF).

October 2010 (2-17 October 2010)

Exploratory Visit to Institute of Aerodynamics, RWTH Aachen University, Germany, NRCT-DFG.

January 2011 – December 2011

Improvement of the Walters-Leylek Transition Model (re-newed), CD-adapco, U.S.A. & U.K.

February 2011 – January 2012

Evaluation of Transition Models for CFD Software Industry, Commission of Higher Education (CHE).

December 2011 – November 2013

Development of a Computer Program for the Solution of Three-Dimensional Turbulent and Transitional Flows using RANS-based Models, MTEC.

May 2014 - July 2014

Implementation of the $\gamma - k_L$ transition model into the CFD code_SATURNE, University of Poitiers, France, French Research Fellowship Program.

January 2015 – December 2016

Improvement of the CFD computer program for analysis of three-dimensional fluid-dynamic problems with computational efficiency better than the CFD commercial software, MTEC.

January 2016 – December 2017

Computer Program for Life Assessment of Gas Turbine Blades, Electricity Generating Authority of Thailand (EGAT).

March 2016 – February 2019

Development of On Demand Material Properties by Spraying Process, Thailand Research Fund (TRF).

PROFESSIONAL ACTIVITY

Program Committee, National Workshop on Cluster Computing NWCC2000, Thammasart University, Bangkok, Thailand.

Program Committee, National Workshop on Cluster Computing NWCC2003, Asian Institute of Technology, Bangkok, Thailand.

Chair of Computational Fluid Dynamics and Mechanics Group, and Member of Organizing Committee, The 8th Annual National Symposium on Computational Science and Engineering (ANSCSE 8), Suranaree University of Technology, Nakhon Ratchasima, Thailand.

Chair of Computational Fluid Dynamics and Mechanics Group, and Member of Organizing Committee, The 9th Annual National Symposium on Computational Science and Engineering (ANSCSE 9), Mahidol University, Bangkok, Thailand.

Chair of Computational Fluid Dynamics and Mechanics Group, and Member of Organizing Committee, The 10th Annual National Symposium on Computational Science and Engineering (ANSCSE 10), Chiangmai University, Chiangmai, Thailand.

Chair of Computational Fluid Dynamics and Mechanics Group, and Member of Organizing Committee, The 11th Annual National Symposium on Computational Science and Engineering (ANSCSE 11), Prince of Songkla University, Songkla, Thailand.

Chair of Computational Fluid Dynamics and Mechanics Group, and Member of Organizing Committee, The 12th Annual National Symposium on Computational Science and Engineering (ANSCSE 12), Ubonrajathani University, Ubonrajathani, Thailand.

Chair of Computational Fluid Dynamics and Mechanics Group, and Member of Organizing Committee, The 13th Annual National Symposium on Computational Science and Engineering (ANSCSE 13), Kasetsart University, Bangkok, Thailand.

Steering Committee, The 14th International Annual Symposium on Computational Science and Engineering (ANSCSE 14), Mae Fah Luang University, Chiang Rai, Thailand.

Steering Committee, The 15th International Annual Symposium on Computational Science and Engineering (ANSCSE 15), Bangkok University, Bangkok, Thailand.

Steering Committee, The 16th International Annual Symposium on Computational Science and Engineering (ANSCSE 16), Chiang Mai University, Chiang Mai, Thailand.

International Advisory Committee, The Asian Symposium on Computational Heat Transfer and Fluid Flow 2015 (ASCHT 2015), BEXCO, Busan, Korea.

Guest Editor, Journal of Research in Engineering and Technology, Special Issue: Turbulent Flow Simulation.

Guest Editor, Journal of Research in Engineering and Technology, Special Issue: Computational Methods for Fluid Dynamics and Mechanics.

Organizer, CFD Workshop 2004, 18 September 2004, 9.00 – 16.00 hrs, Kasetsart University, Bangkok, Thailand, jointly organized by The Engineering Institute of Thailand under H.M. The King's Patronage, Suranaree University of Technology and Kasetsart University, 60 seats.

Organizer, CFD Training Workshop 2015, 7-9 July 2015, 8.30 – 16.00 hrs, King Mongkut's University of Technology North Bangkok, Bangkok, Thailand, 30 seats.

Invited Speaker, "Computational Fluid Dynamics (CFD) for Engineering Applications" at National Engineering Week 2004, 28 - 31 October 2004, Bangkok, Thailand.

Invited Speaker, "Computational Fluid Dynamics (CFD) for Engineering Applications" at Air-Conditioning Engineering Association of Thailand (ACAT), 19 November 2004, Bangkok, Thailand.

Keynote Speaker, "Progress of the $\gamma - k_L$ Transition Model Development," The 5th Asian Symposium on Computational Heat Transfer and Fluid Flow (ASCHT 2015), Busan, Korea, 22-25 November 2015.

Keynote Speaker, "Progress of the $\gamma - k_L$ Transition Model Development," Keynote Lecture, The 6th TSME International Conference on Mechanical Engineering (TSME-ICoME 2015), Petchburi, Thailand, 16-18 December 2015.

Journal Reviewer, Songklanakarin Journal of Science and Technology.

Journal Reviewer, Walailak Journal of Science and Technology.

Journal Reviewer, Meccanica, Springer.

Journal Reviewer, International Journal of Thermal Sciences, Elsevier.

Journal Reviewer, Engineering Journal, Chulalongkorn University.

Journal Reviewer, Fluid Dynamics Research, IOP Publishing.

Journal Reviewer, International Journal of Vehicle Design, Inderscience Publishers.

Journal Reviewer, The Kasetsart Journal (Natural Science), Kasetsart University.

Journal Reviewer, Progress in Computational Fluid Dynamics, Inderscience Publishers.

Grant Reviewer, National Electronics and Computer Technology Center (NECTEC), National Science and Technology Development Agency (NSTDA).

Grant Reviewer, Thailand Research Fund (TRF).

Thesis External Examiner, Chulalongkorn University.

Thesis External Examiner, Thammasat University.

Thesis External Examiner, Kasetsart University.

Thesis External Examiner, King Mongkut's University of Technology Thonburi.

Thesis External Examiner, King Mongkut's Institute of Technology Ladkrabang.

Thesis External Examiner, Naresuan University.

Local External Examiner for Mechanical Engineering as Chair of Committee, Asian University.

PUBLICATION

International Journal and Book Contribution

Dafa'Alla, A.A., *Juntasaro, E.*, and Gibson, M.M. (1996) "Calculation of Oscillating Boundary Layers with the $q - \zeta$ Turbulence Model," Engineering Turbulence Modelling and Experiments 3, W. Rodi and G. Bergeles (Editors), Elsevier, pp. 141-150.

Dafa'Alla, A.A., *Juntasaro, E.*, and Gibson, M.M. (1997) "Computations of Periodic Turbulent Boundary Layers with Moderate Adverse Pressure Gradient," International Journal of Heat and Fluid Flow, Vol. 18, No. 5, pp. 443-451.

Juntasaro, E., and Juntasaro, V. (2006) "On the New Concept of Turbulence Modeling in Fully-Developed Turbulent Channel Flow and Boundary Layer," Chapter 13 in Mathematical and Physical Theory of Turbulence, A Series of Lecture Notes in Pure and Applied Mathematics, Vol. 250, J. Cannon and B. Shivamoggi (Editors), Chapman & Hall/CRC, Taylor & Francis Group, pp. 183-193.

Suluksna, K. and *Juntasaro, E.* (2008) "Assessment of Intermittency Transport Equations for Modeling Transition in Boundary Layers Subjected to Freestream Turbulence," International Journal of Heat and Fluid Flow, Vol. 29, pp. 48-61.

Suluksna, K., Dechaumphai, P., and *Juntasaro, E.* (2009) "Correlations for modeling transitional boundary layers under influences of freestream turbulence and pressure gradient," International Journal of Heat and Fluid Flow, Vol. 30, pp. 66-75.

Malan, P., Suluksna, K., and *Juntasaro, E.* (2009) "Calibrating the γ -*Re* transition model," European Research Community On Flow, Turbulence and Combustion (ERCOFTAC) Bulletin 80, pp. 53-57.

Juntasaro, E., and Ngiamsoongnirn, K. (2014) "A New Physics-Based $\gamma - k_L$ Transition Model," International Journal of Computational Fluid Dynamics, Vol. 28, Issue 5, pp. 204-218.

Juntasaro, E., and Narejo, A.A. (2017) "A $\gamma - k_L$ Transition Model for Transitional Flow with Pressure Gradient Effects," Engineering Journal (article in press on April 2017 issue).

International Conference

Juntasaro, E., and Juntasaro, V. (2003) "On the New Concept of Turbulence Modeling for Fully-Developed Turbulent Channel Flow", The International Turbulence Workshop, 19-23 May 2003, University of Central Florida, Orlando, Florida, USA.

Juntasaro, E., and Juntasaro, V. (2003) "On the New Concept of Turbulence Modeling for Fully-Developed Turbulent Channel Flow", The International Conference: Kolmogorov and Contemporary Mathematics, 16-21 June 2003, Moscow State University, Moscow, Russia.

Sulak, S., Sukjit, E., Juntasaro, V., and *Juntasaro, E.* (2004) "Numerical Prediction of Natural Convection in a Square Cavity," The 15th International Symposium on Transport Phenomena (ISTP-15), 9-13 May 2004, Shangri-La Hotel, Bangkok, Thailand.

Ngiamsoongnirn, K., *Juntasaro, E.*, Juntasaro, V., and Uthayopas, P. (2004) "A Parallel Semi-Coarsening Multigrid Algorithm for Solving the Reynolds-Averaged Navier-Stokes Equations", Proceedings of the 7th International Conference on High Performance Computing and Grid in Asia Pacific Region (HPCAsia2004), 20-22 July 2004, Omiya Sonic City, Tokyo Area, Japan, pp. 258-266.

Juntasaro, E. (2004) "Modeling for Bypass Transition in Boundary Layers on a Flat Plate," Wall-Bounded and Free-Surface Turbulence and Its Computation, Institute for Mathematical Sciences (IMS), National University of Singapore (NUS), Singapore, 7-17 December 2004.

Juntasaro, V., Gururatana, S., Buranarote, J. and *Juntasaro, E.* (2005) "A New Reynolds-Stress Expressions Based on DNS Data in Non-Linear Eddy-Viscosity Turbulence Model for Complex Flows", The Fourth International Symposium on Turbulence and Shear Flow Phenomena (TSFP-4), 27-29 June 2005, Virginia, U.S.A.

Gururatana, S., Juttijudata, V., *Juntasaro, E.* and Juntasaro, V. (2006) "Prediction of 3D Turbulence Induced Secondary Flows in Rotating Square Ducts", Whither Turbulence Prediction and Control (WTPC), Seoul National University, Seoul, Korea, 26 – 29 March 2006.

Suluksna, K., Juntasaro, V. and *Juntasaro, E.* (2006) "$\gamma - \mathrm{Re}_\theta$ Transport Equation for Modeling Transition in Boundary Layers Subjected to Freestream Turbulence," Whither Turbulence Prediction and Control (WTPC), Seoul National University, Seoul, Korea, 26 – 29 March 2006.

Sukjit, E., Juntasaro V., Uthayopas, P., and *Juntasaro, E.* (2006) "Using FLUENT to Predict Heat Transfer in a Computer Case to Optimize the Number of Fans and the Locations to Install," 2006 South East Asia FLUENT Users' Group Meeting, 27 – 28 July 2006, Singapore.

Malan, P., Suluksna, K., and *Juntasaro, E.* (2009) "Calibrating the $\gamma - \mathrm{Re}_\theta$ Transition Model for Commercial CFD," AIAA 2009-1142, 47th AIAA Aerospace Sciences Meeting, 5-8 January 2009, Orlando, Florida, USA.

Ngiamsoongnirn, K., Malan, P., and *Juntasaro, E.* (2010) "Towards an Extension of the SST-k-ω Model for Transitional Flow", The 14th International Annual Symposium on Computational Science and Engineering (ANSCSE 14), 23-26 March 2010, Mae Fah Luang University, Chiang Rai, Thailand.

Ngiamsoongnirn, K., Malan, P., Dechaumphai, P., and *Juntasaro, E.* (2010) "The $\gamma - \mathrm{k}_L$ Model for Prediction of Transitional Flow over a Flat Plate with Zero Pressure Gradient," The 1st TSME International Conference on Mechanical Engineering (TSME-ICoME 2010), 20-22 October 2010, Ubonratchathani University, Ubonratchathani, Thailand.

Nusong, K., and *Juntasaro, E.* (2011) "Numerical Simulation and Optimization of a Fogging System inside a Greenhouse," The 15th International Annual Symposium on Computational Science and Engineering (ANSCSE 15), 30 March–1 April 2011, Bangkok University, Bangkok, Thailand.

Chaibamrung, P., and *Juntasaro, E.* (2011) "Numerical Simulation of the Effect of Insect Screen and Solar Radiation on a Greenhouse," The 15th International Annual Symposium on Computational Science and Engineering (ANSCSE 15), 30 March–1 April 2011, Bangkok University, Bangkok, Thailand.

Sangdech, K., and *Juntasaro, E.* (2011) "Numerical Simulation of a Venturi Tube for the Water-Nutrient Delivery System in a Greenhouse," The 15th International Annual Symposium on Computational Science and Engineering (ANSCSE 15), 30 March–1 April 2011, Bangkok University, Bangkok, Thailand.

Narejo, A.A., and *Juntasaro, E.* (2011) "Evaluation of γ-Re_θ and k_L Transition Models on Riblet-Induced Transition Delay," The Second TSME International Conference on Mechanical Engineering (TSME-ICoME 2011), 19-21 October 2011, Krabi, Thailand.

Juntasaro, E., Ngiamsoongnirn, K., and Juntasaro, V. (2012) "Intermittency Algebraic Model for RANS-based Prediction of Transitional Boundary Layers on a Flat Plate with Zero Pressure Gradient," The 9th International ERCOFTAC

Symposium on Engineering Turbulence Modelling and Measurements (ETMM-9), 6-8 June, 2012, Macedonia Palace Hotel, Thessaloniki, Greece.

Hopmann, Ch., *Juntasaro, E.*, Küsters, K., van Haag, J., and Thienthong, T. (2012) "Filling Behavior of Long Fiber-reinforced Thermoplastics in the Injection Molding Process," The 28th International Conference of Polymer Processing Society (PPS-28), 11-15 December 2012, Pattaya, Chonburi, Thailand.

Juntasaro, E., Ngiamsoongnirn, K., and Juntasaro, V. (2013a) "A New Intermittency Transport Equation for Natural Transition," The 4th Asian Symposium on Computational Heat Transfer and Fluid Flow (ASCHT'13), Hong Kong, 3-6 June 2013.

Juntasaro, E., Ngiamsoongnirn, K., and Juntasaro, V. (2013b) "A New Intermittency Transport Equation for Bypass Transition," The 8th International Symposium on Turbulence and Shear Flow Phenomena (TSFP-8), Poitiers, France, 28-30 August 2013.

Butsangdee, W., Ngiamsoongnirn, K., and *Juntasaro, E.* (2013) "Numerical Simulation of Boundary Layer Separation Induced Transition using ANSYS FLUENT User Defined Function," The 4th TSME International Conference on Mechanical Engineering (TSME-ICoME 2013), 16-18 October 2013, Pattaya, Chonburi, Thailand.

Juntasaro, E. (2015) "Progress of the $\gamma - k_L$ Transition Model Development," Keynote Lecture, The 5th Asian Symposium on Computational Heat Transfer and Fluid Flow (ASCHT 2015), Busan, Korea, 22-25 November 2015.

Juntasaro, V., and *Juntasaro, E.* (2015) "A New Reynolds-Stress Constitutive Relation for Fully-Developed Turbulent Channel Flow at Various Reynolds Numbers," The 5th Asian Symposium on Computational Heat Transfer and Fluid Flow (ASCHT 2015), Busan, Korea, 22-25 November 2015.

Juntasaro, E., Narejo, A.A., and Juntasaro, V. (2015) "$\gamma - k_L$ Transition Model for Natural and Bypass Transitions," The 5th Asian Symposium on Computational Heat Transfer and Fluid Flow (ASCHT 2015), Busan, Korea, 22-25 November 2015.

Juntasaro, E. (2015) "Progress of the $\gamma - k_L$ Transition Model Development," Keynote Lecture, The 6th TSME International Conference on Mechanical Engineering (TSME-ICoME 2015), Petchburi, Thailand, 16-18 December 2015.

Borwornpiyawat, P., *Juntasaro, E.*, Narejo, A.A., Traoré, P., Meinke M., and Juntasaro V. (2016) "Comparative Study of the CTM and SDM-IDC Methods for Diffusive Fluxes Calculation in the CFD Code Based on SIMPLE Algorithm on Highly Skewed Meshes," The 9th International Conference on Computational Fluid Dynamics (ICCFD9), Istanbul, Turkey, 11-15 July 2016.

Thienthong, T., *Juntasaro, E.*, Sripumkhai, W., Houngkamhang, N., Chanasakulniyom, M., Khemthongcharoen, N., Yasawong, M., Hruanun, C., Poyai,

A., Promptmas, C., Uawithya, P., and Jeamsaksiri, W. (2016) "Design and Validation of a Multiple Dilution Microfluidic Chip for a Human Serum Preparation," The 7th TSME International Conference on Mechanical Engineering (TSME-ICoME 2016), Chiang Mai, Thailand, 13-16 December 2016.

National Journal

Juntasaro, E., Uthayopas, P., Sawatmongkhon, B., and Boonmee, K. (2001) "High Performance Computing for Compressible Turbulent Flow," NECTEC Technical Journal, Vol. II, No. 9, pp. 182-192.

Sukjit, E., Juntasaro, V., and *Juntasaro, E.* (2004) "Numerical Study of Airflow, Temperature and Humidity in a Clean Room", The 9th Annual Proceedings of the Air-Conditioning Engineering Association of Thailand (ACAT), Thailand.

Juntasaro, V. and *Juntasaro, E.* (2004) "Reynolds-Averaged Navier-Stokes (RANS) Equations: Turbulence Modeling Review", Journal of Research in Engineering and Technology, Special Issue: Turbulent Flow Simulation, Vol. 1, No. 4, pp. 290-320.

National Conference

Buranarote, J., *Juntasaro, E.*, and Juntasaro, V. (2005) "Comparative Study of Non-Linear Turbulence Heat Flux for Fully-Developed Channel Flow," The 9th Annual National Symposium on Computational Science and Engineering (ANSCSE 9), Mahidol University, Bangkok, Thailand.

Gururatana, S., *Juntasaro, E.*, and Juntasaro, V. (2005) "Comparative Study of Reynolds-Stress Expressions in Non-Linear Turbulence Models for Secondary Flows in a Square Duct," The 9th Annual National Symposium on Computational Science and Engineering (ANSCSE 9), Mahidol University, Bangkok, Thailand.

Gururatana, S., *Juntasaro, E.* and Juntasaro, V. (2005) "Evaluation of $k - \omega$ SST Turbulence Model for Wall-Bounded Flows in 3D Square Ducts," The 19th Conference of Mechanical Engineering Network of Thailand (ME-NETT 19), 19-21 October 2005, Phuket, Thailand.

Juntasaro, E., and Juntasaro, V. (2003) "On the New Concept of Turbulence Modeling", The 7th Annual National Symposium on Computational Science and Engineering (ANSCSE 7), 24-26 March 2003, Chulalongkorn University, Bangkok, Thailand.

Juntasaro, E., and Juntasaro, V. (2003) "A New Approach on Modeling the Gradient of Reynolds Shear Stress in Reynolds-Stress Models for Fully-Developed Turbulent Channel Flow", The 17th Conference of Mechanical Engineering Network of Thailand (ME-NETT 17), 15-17 October 2003, KMITNB – Prachinburi, Thailand.

Juntasaro, E., and Sawatmongkhon, B. (1999) "Compressible Laminar Flow towards a Numerical Wind Tunnel," Proceedings of the 13th National Mechanical Engineering

Conference, Royal Cliff Beach Resort Hotel, South Pattaya, Cholburi, Thailand, pp. 132–137.

Juntasaro, E., Uthayopas, P., Sawatmongkhon, B., and Boonmee, K. (2001) "High Performance Computing for Steady Two-Dimensional Turbulent Flow," Proceedings of the 5th Annual National Symposium on Computational Science and Engineering (ANSCSE 5), Bangkok Convention Center (BCC), Central Plaza, Bangkok, Thailand, pp. 126-140.

Juntasaro, V., Gururatana, S., Buranarote, J., and *Juntasaro, E.* (2004) "Comparative Study of Reynolds-Stress Expressions in Non-Linear Turbulence Models for CFD," The 18th Conference of Mechanical Engineering Network of Thailand (ME-NETT 18), Khon Khaen University, Thailand.

Meesit, A., *Juntasaro, E.*, Juntasaro, V., and Asavanant, J. (2004) "Application of Adaptive Mesh Refinement Method for Predicting Incompressible Viscous Cavity Flows," The 8th Annual National Symposium on Computational Science and Engineering (ANSCSE 8), 21-23 July 2004, Suranaree University of Technology, Nakhon Ratchasima, Thailand.

Meesit, A., *Juntasaro, E.*, Juntasaro, V., and Asavanant, J. (2005) "Adaptive Mesh Refinement Method for Predicting Three-Dimensional Turbulent Flow," The 19th Conference of Mechanical Engineering Network of Thailand (ME-NETT 19), 19-21 October 2005, Phuket, Thailand.

Ngiamsoongnirn, K., *Juntasaro, E.*, Juntasaro, V., and Uthayopas, P. (2003) "Parallel Computing on the Navier-Stokes Solver with the Multigrid Method", The 17th Conference of Mechanical Engineering Network of Thailand (ME-NETT 17), 15-17 October 2003, KMITNB – Prachinburi, Thailand.

Ngiamsoongnirn, K., *Juntasaro, E.*, Juntasaro, V., and Uthayopas, P. (2004) "Parallel Computation of Complex Geometry Flow using a Multi-Block Technique", The 8th Annual National Symposium on Computational Science and Engineering (ANSCSE 8), 21-23 July 2004, Suranaree University of Technology, Nakhon Ratchasima, Thailand.

Ngiamsoongnirn, K., *Juntasaro, E.*, Juntasaro, V., and Uthayopas, P. (2005) "Parallel Computation of Turbulent Flow over a Backward-Facing Step," The Tenth Annual National Symposium on Computational Science and Engineering (ANSCSE 10), 22-24 March 2006, Department of Mathematics, Faculty of Science, Chiang Mai University, Chiang Mai, Thailand.

Ngiamsoongnirn, K., Juntasaro, V., and *Juntasaro, E.* (2006) "Multigrid Acceleration of Three Turbulence Models in Predicting Stratified Flow Driven by Natural Convection in a Square Cavity", The 20th Conference of Mechanical Engineering Network of Thailand (ME-NETT 20), 18-20 October 2006, Suranaree University of Technology, Nakhon Ratchasima, Thailand.

Ngiamsoongnirn, K., Juntasaro, V., Uthayopas, P. and *Juntasaro, E.* (2003) "Parallel Computing on the Navier-Stokes Solver", The 7th Annual National Symposium on Computational Science and Engineering (ANSCSE 7), 24-26 March 2003, Chulalongkorn University, Bangkok, Thailand.

Ngiamsoongnirn, K., Juntasaro, V., Uthayopas, P., and *Juntasaro, E.* (2005) "Multiblock Multigrid Implementation for Flow through a T-junction with Parallel Computing," The 19th Conference of Mechanical Engineering Network of Thailand (ME-NETT 19), 19-21 October 2005, Phuket, Thailand.

Ngiamsoongnirn, K., Malan, P., and *Juntasaro, E.* (2009) "Numerical Study of Transition Models for Flow over a Flat Plate", The 14th National Graduate Research Conference, 10-11 September 2009, King Mongkut's University of Technology North Bangkok, Bangkok, Thailand.

Sawatmongkhon, B., and *Juntasaro, E.* (2001) "Software Development for the Simulation of Two-Dimensional Flow," Proceedings of the 15th Conference of Mechanical Engineering Network of Thailand (ME-NETT 15), Srinakharinwirot University, Bangkok, Thailand, Vol. 1, pp. 6-13.

Siriboonluckul, N., *Juntasaro, E.* and Juntasaro, V. (2004) "Simulation of Velocity, Temperature, Relative Humidity and Particle Concentration in a Boundary Layer on a Flat Plate," The 8th Annual National Symposium on Computational Science and Engineering (ANSCSE 8), 21-23 July 2004, Suranaree University of Technology, Nakhon Ratchasima, Thailand.

Siriboonluckul, N., *Juntasaro, E.*, and Juntasaro, V. (2004) "Application of k-□ Turbulence Model for Particle-Laden Flows," The 18th Conference of Mechanical Engineering Network of Thailand (ME-NETT 18), Khon Khaen University, Thailand.

Siriboonluckul, N., *Juntasaro, E.*, and Juntasaro, V. (2005) "Application of $k - \omega$ SST Turbulence Model for Separated Particle-Laden Flows," The 19th Conference of Mechanical Engineering Network of Thailand (ME-NETT 19), 19-21 October 2005, Phuket, Thailand.

Sitprasert, C., *Juntasaro, E.*, and Juntasaro, V. (2007) "Evaluation for Thermal Conductivity Models of Nanofluids", The Eleventh Annual National Symposium on Computational Science and Engineering (ANSCSE 11), 22-24 March 2006, Department of Mathematics, Faculty of Science, Chiang Mai University, Chiang Mai, Thailand.

Sukjit, E., Juntasaro, V., and *Juntasaro, E.* (2003) "Numerical Simulation for Air Flow in a Small Clean Room," The 17th Conference of Mechanical Engineering Network of Thailand (ME-NETT 17), 15-17 October 2003, KMITNB – Prachinburi, Thailand. (Poster)

Sukjit, E., Juntasaro, V., and *Juntasaro, E.* (2004) "Application of Computational Fluid Dynamics for Predicting a Small Clean Room using a Low-Reynolds-Number

$k-\varepsilon$ Turbulence Model," The 8th Annual National Symposium on Computational Science and Engineering (ANSCSE 8), 21-23 July 2004, Suranaree University of Technology, Nakhon Ratchasima, Thailand.

Sukjit, E., Juntasaro, V., and *Juntasaro, E.* (2005) "Analysis of Ducted and Jet-Fan Ventilation Systems in an Underground Car Park using Computational Fluid Dynamics (CFD)," The 19th Conference of Mechanical Engineering Network of Thailand (ME-NETT 19), 19-21 October 2005, Phuket, Thailand.

Sukjit, E., Juntasaro, V., and *Juntasaro, E.* (2006) "Numerical Study of Turbulence Effects on Behaviors of Airflow, Temperature, Humidity and Particle in a Clean Room", The 20th Conference of Mechanical Engineering Network of Thailand (ME-NETT 20), 18-20 October 2006, Suranaree University of Technology, Nakhon Ratchasima, Thailand.

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Patent

No: 1103001254
Type: Petty Patent
Title: Venturi Tube for Aeration
Inventor: Ekachai Juntasaro and Kraisorn Sangdech
Ownership: Thailand Research Fund (TRF) and King Mongkut's University of Technology North Bangkok (KMUTNB)

Copyright

No: 280896
Type: Copyright (Computer Program)
Title: CFD-transition R1.0
Inventor: Ekachai Juntasaro and Abdul Ahad Narejo
Ownership: National Science and Technology Development Agency (NSTDA) and King Mongkut's University of Technology North Bangkok (KMUTNB)

No: 284139
Type: Copyright (Computer Program)
Title: CFD-ufv2d R1.0
Inventor: Ekachai Juntasaro and Abdul Ahad Narejo
Ownership: National Science and Technology Development Agency (NSTDA) and King Mongkut's University of Technology North Bangkok (KMUTNB)

No: 288045
Type: Copyright (Computer Program)
Title: CFD-ufv3d R1.0
Inventor: Ekachai Juntasaro and Abdul Ahad Narejo
Ownership: National Science and Technology Development Agency (NSTDA) and King Mongkut's University of Technology North Bangkok (KMUTNB)

No: 293345
Type: Copyright (Computer Program)
Title: CFD-ufv3dt R1.0
Inventor: Ekachai Juntasaro and Abdul Ahad Narejo
Ownership: National Science and Technology Development Agency (NSTDA) and King Mongkut's University of Technology North Bangkok (KMUTNB)

Tutorial

Sulak, S., and *Juntasaro, E.* (2003) "Workshop on CFD: Multigrid Tutorial for Linear Elliptic Problems", The 7th Annual National Symposium on Computational Science and Engineering (ANSCSE 7), 24-26 March 2003, Chulalongkorn University, Bangkok, Thailand.

Workshop

CFD Workshop 2004, 18 September 2004, 9.00 – 16.00 hrs, Kasetsart University, Bangkok, Thailand, jointly organized by The Engineering Institute of Thailand under H.M. The King's Patronage, Suranaree University of Technology and Kasetsart University, 60 seats.

CFD Training Workshop 2015, 7-9 July 2015, 8.30 – 16.00 hrs, King Mongkut's University of Technology North Bangkok, Bangkok, Thailand, 30 seats.

Seminar

CFD Seminar on "CFD Research from My Experience," 24 January 2008, 9.00 – 10.00 hrs, Prince of Songkla University.