Plenary Speaker 1: Professor Takashi Kohno (University of Tokyo, Japan)
Title: Towards Neuromimetic Computing

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Takashi Kohno, M.D., Ph.D., Professor, Institute of Industrial Science, University of Tokyo, Japan.

Academic background:

Mar., 1990, Graduated Nada High School.

Apr., 1990 ~ Mar., 1996, Studied biology and clinical medicine in School of Medicine, University of Tokyo.

Apr., 1996 ~ Mar., 2002, Studied mathematical engineering in Postgraduate School of Engineering, University of Tokyo and Postgraduate School of Frontier Sciences, University of Tokyo. Obtained B.S. degree in Medicine, Ph.D. in Engineering, and Medical license.

Career: Apr., 2002 ~ Jan., 2004, Medical staff in Department of Medical Informatics, Hamamatsu University School of Medicine, Japan.

Feb., 2004 ~ Aug., 2006, Group Leader in Aihara Complexity Modelling Project, ERATO, JST, Japan.

Sep., 2006 ~Associate Professor in Center for International Research on MicroMechatronics, Institute of Industrial Science, University of Tokyo.

Research interest:

Silicon neuron and neural network are our current research theme. Our final goal is to achieve cerebration machine more "intelligent" than human brain. We DO NOT stick to any specific research fields but incorporate and combine organically the knowledge in Theoretical, Constructive, and Phenomenological research fields.

Contact information:

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Plenary Speaker 2: Professor Eiji Hayashi (Kyushu Institute of Technology, Japan)
Title: Innovative Robot - Robot/AI for Factory Automation-

Eiji Hayashi, Ph.D., Faculty of Computer Science and Systems Engineering, Department of Intelligent and Control System, Professor, Kyushu Institute of Technology, Japan.

haya@mse.kyutech.ac.jp

Academic background: Waseda University, Graduate School, Division of Science and Engineering, Doctor Course, 1994.03 , Accomplished Credits for Doctoral Program, Japan
Degree: Doctor of Engineering, Other, Waseda University, Coursework, 1996.03
Website: http://www.mmcs.mse.kyutech.ac.jp/
Employment Record in Research:
- Department of Intelligent and Control Systems, Faculty of Computer Science and Systems Engineering, Kyushu Institute of Technology, Professor, 2019.04 -
- Department of Mechanical Information Science and Technology, Faculty of Computer Science and Systems Engineering, Kyushu Institute of Technology, Professor, 2013.06 - 2019.03
- Department of Mechanical Information Science and Technology, Faculty of Computer Science and Systems Engineering, Kyushu Institute of Technology, Associate Professor, 2008.04 - 2013.05

External Career:
- Massachusetts Institute of Technology Department of Mechanical Engineering , Researcher , 2002.08 - 2003.07
- Research Associate, 1994.04 - 1997.01

Research Field (grants-in-aid-for-scientific-research classification)
- Perception information processing/intelligent robotics
- Intelligent mechanics/mechanical system

Research Career:

- Development of an Autonomous Personal Robot , 2003.04 -
- Actuator, Mechatronics Dynamics , Machine mechanics/control, Intelligent mechanics/mechanical system , Other , Collaboration in Japan , (Non-optional)
- Research of Sensory modality on Communication , 2005.04 -
  Sensory modality, Consciousness, Communication, Autonomous, Other, Other, It is Determined Uninstalled, (Non-optional)
- Development of Information processing on Music, 2003.04 -
  Music, Interface, pattern matching DP, Sensitivity informatics/soft computing, Perception information processing/intelligent robotics, Other, Collaboration in Japan, (Non-optional)
- Research on Haptic Device, 2005.04 -
  Haptic, Micro Nano, Sense, Sensitivity informatics/soft computing, Perception information processing/intelligent robotics, Man-machine system, Intelligent Informatics, It is Determined Uninstalled, (Non-optional)

Published papers (2006.4～):

- English, Autonomous Action Selection with Motivation-based Consciousness and Behavior Architecture of Animal , Proceedings of The 5th Int. Conference on Automation, Robotics and Applications (p.294 - 299) , 2011.12 , Eiji Hayashi, Kei Ueyama, Motoki Yoshida, DOI:10.1109/ICARA.2011.6144898, International Conference Proceedings , The Multiple Authorship
- Japanese , Development of Hapthic Device using VC Motor , the Japan Society of Applied Electromagnetics and Mechanics , vol.19 (4) (p.653 - 660) , 2011.12 , Eiji Hayashi, Jyunpei Noda, Tory Uehara, Academic Journal , The Multiple Authorship
- English, Autonomous Motion Selection via Consciousness-based Architecture , Proceedings of The 8th International Con- ference on Ubiquitous Robots and Ambient Intelligence (URAI 2011) (p.401 - 402) , 2011.11 , Eiji Hayashi, Kei Ueyama, Motoki Yoshida, DOI:10.1109/URAI.2011.6145851, International Conference Proceedings, The Multiple Authorship
- English, Automated piano: Techniques for accurate expression of piano playing, Springer Tracts in Advanced Robotics, vol.74 (p.143 - 163), DOI:10.1007/978-3-642-22291-7_9, Academic Journal , The Simple Work

- English, Design of robotic arm's action to imitate the mechanism of an animal's consciousness, Journal of Artificial Life and Robotics, vol.Vol.15 (p.565 - 570), 2010.12, Eiji Hayashi, Takahiro Yamasaki,
    DOI:10.1007/s10015-010-0869-5, Academic Journal, The Multiple Authorship

Research Achievement (Book):

- Japanese, 2011.07
    The Book (the science book, The Multiple Authorship, Perception information processing/intelligent robotics, Sensitivity informatics/soft computing
- English, Advances in Human-Robot Interaction, NTECH, 2009.12, Eiji Hayashi
    The Book (the science book), The Multiple Authorship
- Japanese, 2004.06
    The Textbook, The Multiple Authorship
- Japanese, 2002.11
    The Textbook, The Multiple Authorship

Research presentations (2006.4～):
- Domestic Conference without screening , 2016.03 , The Oral (generality)
- Domestic Conference without screening , 2016.03 , The Oral (generality)
- Domestic Conference without screening , 2016.03 , The Oral (generality)
- Domestic Conference without screening , 2016.03 , The Oral (generality)
- Domestic Conference without screening , 2015.03 , The Oral (generality)

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Plenary Speaker 3: Professor Jeffrey Johnson (Engineering and Innovation, The Open University)
Title: A Structural Language for Multilevel Dynamics in the Design of Robot Soccer Systems

jeff.johnson@open.ac.uk

He received his PhD in Mathematics from Essex University. He is Professor of Complexity Science and Design in the School of Engineering and Design in the STEM Faculty of the Open University. He joined the Open University in 1980 after three years as Senior Research Associate in the Geography Department of Cambridge University, and six years as Research Fellow in the Mathematics Department of Essex University. He is and Vice-President of the UNESCO UniTwin Complex Systems Digital Campus and Past-President of the Complex Systems Society chartered mathematician and a chartered engineer.

CV:
Professor of Complexity Science and Design, Open University, 2002 -
President of Complex Systems Society 2007-2011
Head of Department, DDEM, 2007 - 2010
Vice-President, Complex Systems Society, 2005 - 2007
British Council Monbusho Professor in Eletrical Engineering, Oita Univeristy, 2000 & 2002
Senior Research Fellow in Design & Innovation, Open University, 1980-2002
Senior Research Associate in Geography, Cambridge University, 1977 - 1980
Research Fellow in Mathematics, Essex University, 1971-77
Managing Director, Vision Scientific Ltd, 1989-
PhD (Mathematics), Essex University, 1976.
Chartered Engineer (Fellow of the British Computer society)
Chartered Mathematician (Fellow of the Institute of Mathematics & its Applications)
Website: http://www9.open.ac.uk/mct/people/jeff.johnson

Plenary Speaker 4: Professor Naoki Suganuma (Institute for Frontier Science Initiative, Kanazawa University)
Title: Towards fully automated driving in urban areas

Naoki Suganuma, Ph.D., Institute for Frontier Science Initiative, Division of Mechanical Science and Engineering, Graduate School of Natural Science and Technology, School of Frontier Engineering, College of Science and Engineering, Professor, Kanazawa

suganuma@staff.kanazawa-u.ac.jp University, Japan.

Academic background(Doctoral/Master's Degree):
Kanazawa University   Doctor   200203   Completed
Kanazawa University   Master   200003   Completed
Academic background(Bachelor's Degree):
Kanazawa University   199803
Website: https://ridb.kanazawa-u.ac.jp/public/detail_en.php?id=2554
Specialties: Perceptual information processing, Intelligent mechanics/Mechanical systems, Measurement engineering
Grant-in-Aid for Scientific Research:
○ "Realization of automatic tracking and running of a car using a vision system" (2002-)
"Realization of active driving support of automobiles by fusing map information and 3D environment information" (2004-2006) 2006
○"Development of a highly secure and secure Plug-and-Play type self-position / posture estimation method" (2008-2010)
○ "Development of a Dependable Autonomous Autonomous Driving Vehicle System" (2012-2014)
○"Active safety sensing system supporting micro-mobility elderly drivers '' (2014-2017)
○"Development of a fully automatic driving system capable of realizing natural driving at urban intersections '' (2017-2019)