2014 Robotics Seminar (1)/IFToMM Japan Council

Time: Tuesday March 18th, 14:30-15:3

Place: Tokyo University of Agriculture and Technology
Koganei Campus, Blg 9, room 505

Host: Gentiane Venture

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Dynamic Modeling of Floating Systems: Application to Eel-like Robot and Rowing system



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<u>Abstract:</u> This talk presents the dynamic modeling of floating systems with application for three-dimensional swimming eel-like robot and rowing-like system. To obtain the Cartesian evolution during the design or control of these systems the dynamic models must be used. Owing to the complexity of such systems efficient and simple tools are needed to obtain their model. For this goal we propose an efficient recursive Newton-Euler approach which is easy to implement. It can be programmed either numerically or using efficient customized symbolic techniques

Biography: Prof. Wisama Khalil ($\mathcal{D}\mathcal{P}$) $\mathcal{P}\mathcal{T}\mathcal{P}\mathcal{T}$) received the Ph.D. and the "Doctorat d'Etat" degrees in robotics and control engineering from the University of Montpellier, France, in 1976 and 1978, respectively. Since 1983, he has been a Professor at the Automatic Control and Robotics Department, Ecole Centrale de Nantes, France. He is the coordinator of Erasmus Mundus master course EMARO "European Master in Advanced Robotics". He is carrying out his research within the Robotics team, Institut de Recherche en Communications et Cybernétique de Nantes (IRCCyN). His current research interests include modeling, control, and identification of robots. He has more than 100 publictions in journals and international conferences.