



IEEE Expert Now

"Home Networking Standards" by Marie-José Montpetit sponsored by the IEEE Communications Society

The converging digital technologies of television, publishing, telephony and computers, the so-called multimedia revolution, have prompted the deployment of a multitude of high-speed applications from streaming video to the World Wide Web to desktop video editing. The all-IP network is emerging as the network layer of choice. Technologies are needed to transport the information and software and middleware to allow the Home Network to be "user friendly". After completing this course you should be able to develop an understanding of:

- * Home Networking standards from transmission, like the popular 802.11 wireless, to middleware like OCAP or MHP
- * The important IP protocols

Marie-José Montpetit received her PhD in Computer and Electrical Engineering from the Ecole Polytechnique in Montreal, Canada. She is currently at Motorola in the Connected Homes Solutions Division.



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"Computational Intelligence: Natural Information Processing" by Leonid Perlovsky, sponsored by the IEEE Computational Intelligence Society

This course covers the rapidly evolving field of Computational Intelligence and focuses on the current understanding of the fundamental principles of working the mind, their computational implementations, and practical applications.

This course covers mind mechanisms, including concepts, emotions, instincts, behavior, language, cognition, understanding, thinking, intuitions, conscious and unconscious, abilities for formation of symbols and aesthetic feelings. Computational techniques are given for these mechanisms and abilities. After completing this course you should be able to develop an understanding of:

- * Cognition
- * Modeling Field Theory (MFT) of cognition
- * Integration of cognition and language
- * Prolegomena to a theory of the mind
- * Future directions

