Multimodal Biometric Recognition

With increased emphasis on security, surveillance and identity fraud, there is a growing and urgent need for routine efficient biometric recognition. The demand for such recognition systems has been accompanied by a growing research interest in biometric technologies. Biometric recognition systems refer to the automatic recognition, authentication and/or, verification of a person's identity based on human physical, physiological or behavioral characteristics. The usage of multiple biometrics in the same system often increases the reliability of the recognition results. Acquiring biometric signals of sufficient quality and using them for reliable decision making is of critical importance. The quality of biometric data, fusion of multiple modalities and performance of the recognition systems for each modality are crucial for scaling up the existing techniques to real life applications.

This special session provides an integrated platform to present original ideas, theory, design, and applications of multimodal biometric recognition. Topics of interest include, but are not limited to the following:

- Theoretical approaches and modeling in biometric recognition
- Artificial learning systems for biometric image and information processing and evidential reasoning for recognition
- Intelligent search in databases
- Perception of shape, shadows, poses, color and illumination in biometric recognition
- Tracking for inferring shapes and 3D models for biometry
- Active visual perception, attention and vision for improved biometric recognition
- Novel techniques in face, gesture, gait, iris, voice and fingerprint recognition
- Fusion of multimodal information for robust biometry
- Application of multimodal processing in areas of
    - Biometric identification and acquisition systems in homeland security, defense and industry
    - Biometric authentication systems
    - Smart cards
    - Identity verification systems
    - Surveillance and monitoring
    - Standards and evaluation techniques
- Any other topics related to multimodal approaches in biometric recognition

Session Chair

Khan M. Iftekharuddin, Ph.D.

Associate Professor of Electrical and Computer Engineering
Director, Intelligent Systems and Image processing Lab
Institute for Intelligent Systems
206 Engineering Science Building
The University of Memphis
Memphis, TN 38152-3810.
Tel: (901)-678-3250 / Fax: (901)-678-5469
Email: iftekhar@memphis.edu
URL: http://umdrive.memphis.edu/iftekhar/faculty/iftekhar.htm