

**IEEE Journal on Selected Areas in Communications**  
**CALL FOR PAPERS**  
**Wireless and Pervasive Communications for Healthcare**

Wireless and Pervasive Communications for Healthcare, a new and growing interdisciplinary field, calls for innovation in information and communications technology to facilitate reliable, comprehensive, and high quality healthcare. Advances in networking infrastructure as well as middleware are vital to delivering telemedicine services regardless of a patient's physical location. In-home care for elderly persons is costly and can require sensors, wireless monitoring devices, and networking infrastructure and middleware to automatically contact emergency services. Healthcare is motivating unique basic research challenges in wireless and pervasive communications due to requirements for safe signal propagation characteristics, low network latency, low packet loss, high quality image and video transmission, and the need for safe, secure, and dependable operation. The goal of this issue is to report on cutting-edge research in communications for healthcare. Basic research papers are solicited, but papers on systems integration or deployment will also be considered. We seek papers that describe original and unpublished contributions, and that reflect those aspects of communications research for healthcare which are distinctly different from communications research in general. Possible topics include :

- New network architectures for wireless telemedicine
- Unique wireless network research issues to support healthcare applications
- Regionally-lossless and near-lossless coding for medical images
- Unique middleware for enabling medical applications
- Equipping ambulances with wireless and sensor networks
- E-surgery using large bandwidth connections
- Mobile and wearable technologies for next generation drug trials
- Sensors and mobile devices for continuous patient monitoring
- Cyber-physical systems for patient monitoring
- Sensor networks for hospitals, operating rooms, elderly monitoring
- Autonomic sensor networks for healthcare
- Remote tactile sensors for remote diagnosis
- Actuators and prompters for rehabilitation and behavior modification
- Organic computing for healthcare networks

Prospective authors should follow the IEEE J-SAC manuscript format described in the Information for Authors under <http://www.jsac.ucsd.edu/>. Authors MUST submit their manuscripts through the EDAS peer review website.

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