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Ubiquitous and Intelligent Computation—Techniques, Technologies and Best Practices

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This talk introduces technologies and platforms that facilitate ubiquitous computation and its infrastructure, namely popular devices including mobile devices such as PDAs and cell phones, high capacity wireless connectivity via WIFI and WIMAX, and object-to-device mapping technologies including RFID and QR Codes. Furthermore, techniques for retrieving relevant and correct information, filter irrelevant information and how to tailor this information to these resource constrained devices are outlined.

Furthermore, best practices for ubiquitous information systems user interface design are reviewed. Emphasis is placed on the ubiquitous user who often is overloaded with sensory input and cognitive loads. Applications often have zero tolerance for error.

The various techniques, technologies and concepts presented will be illustrated from real world examples and applications taken from the presenters' research where AI-technique is an essential ingredient.