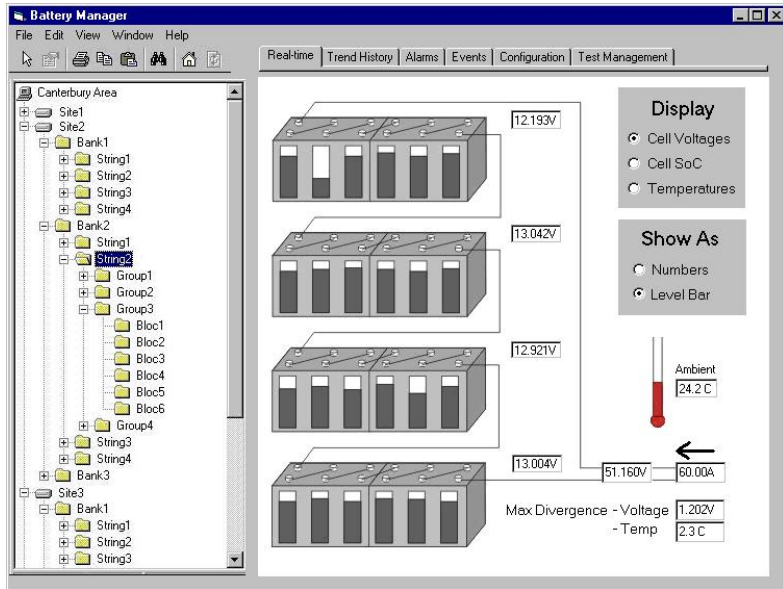
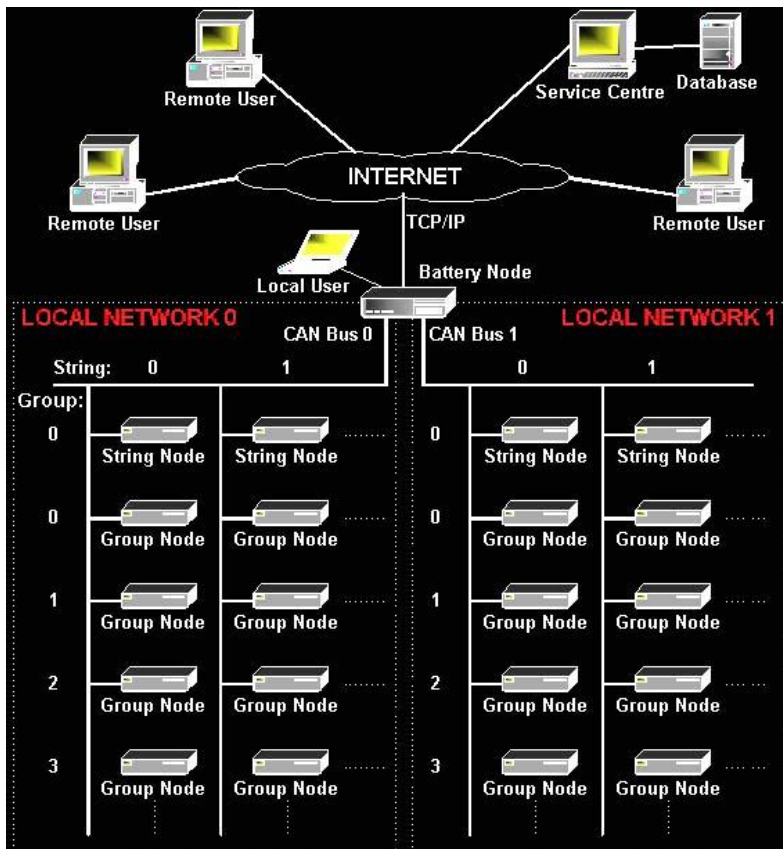
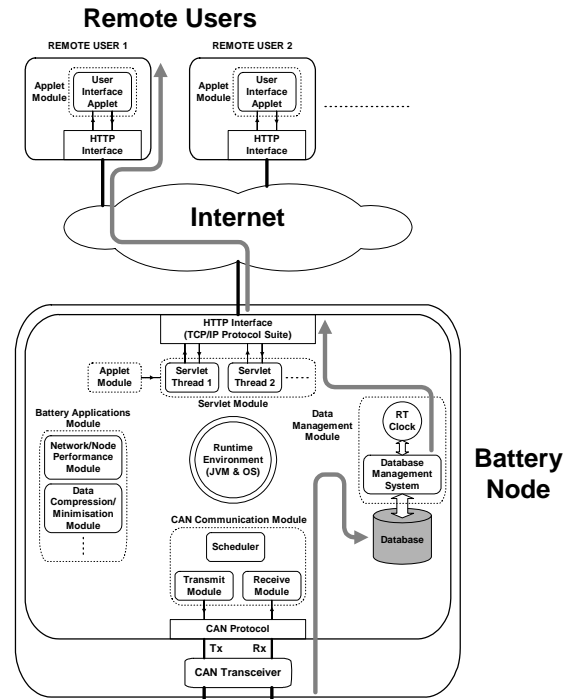


AUT SeNSE Research Activities

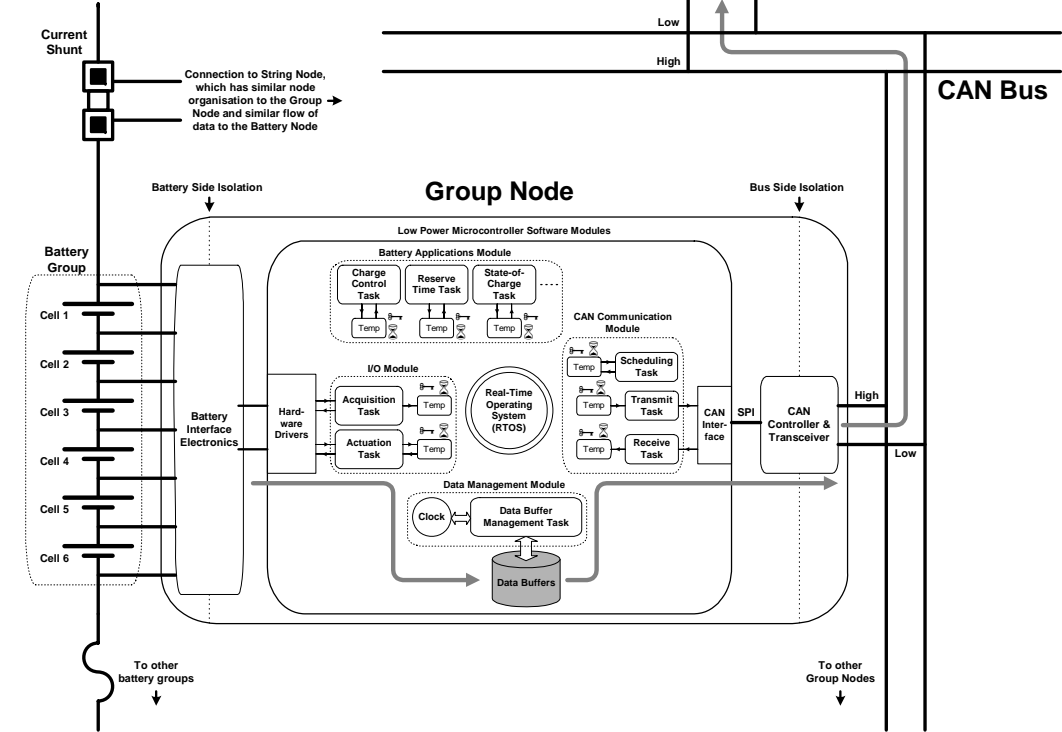
Adnan Al-Anbuky, professor
Director of SeNSE Research Centre
AUT University



Background



Battery String



Overview

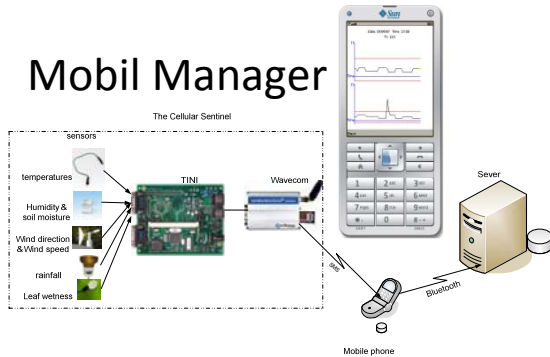
- SeNSE Background
 - Background
 - 3 layer network for telecommunication power system
 - Testing the concept on number of application
 - Leaky building , perishable food distribution, cool stores,
 - Association with Electronic & Computer Engineering
 - Focus towards Sensor Embedded Intelligence & Network architecture
- Presentation
 - SeNSE Projects
 - Technology Drivers
 - Motivations & Directions
 - Possible Involvement

AUT-SeNSE Research Projects

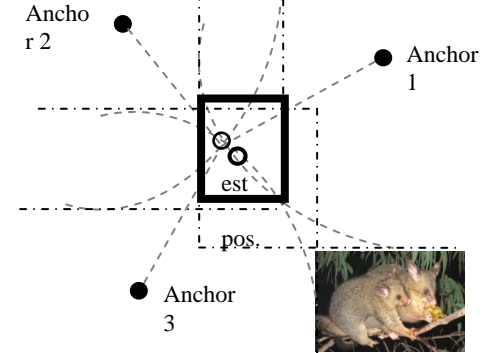
Microclimate Sensor



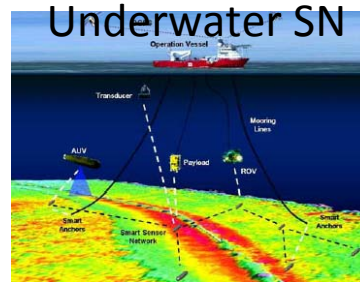
Mobil Manager



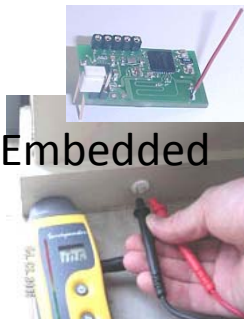
Wildlife Cognitive Network



Underwater SN

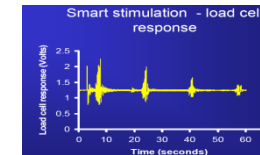


Building Embedded Network

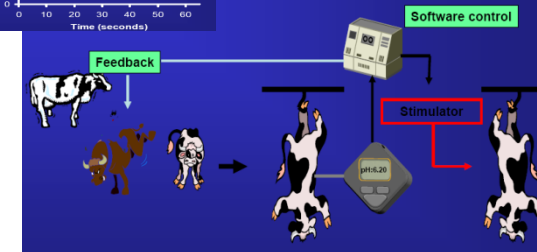


Sensor Network & Smart Environment

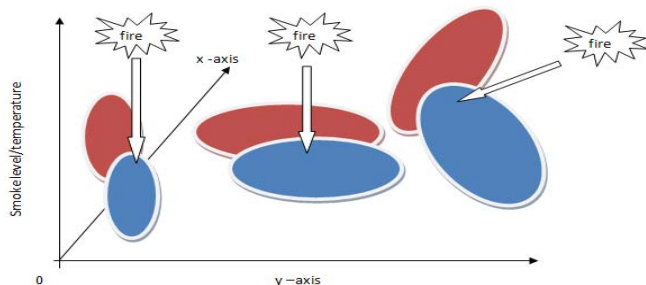
Meat Tenderization



Smart Stimulation

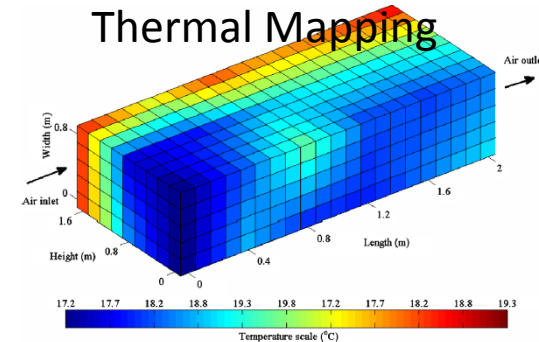


Multi-Variable Data Streaming



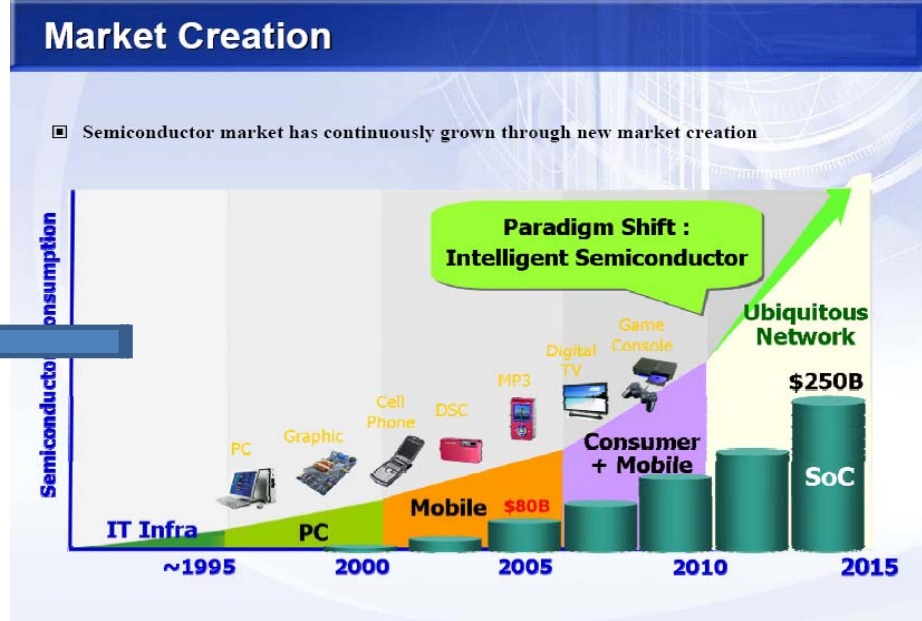
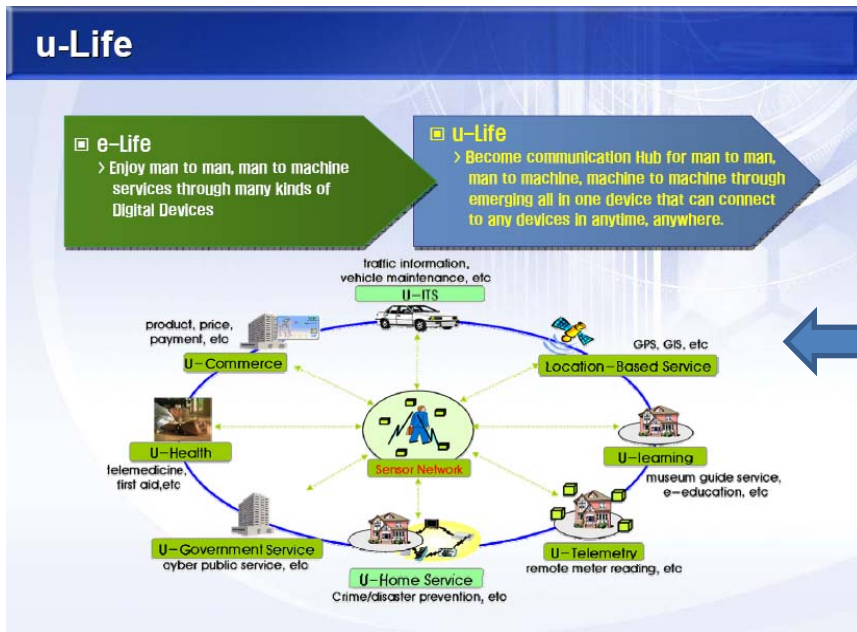
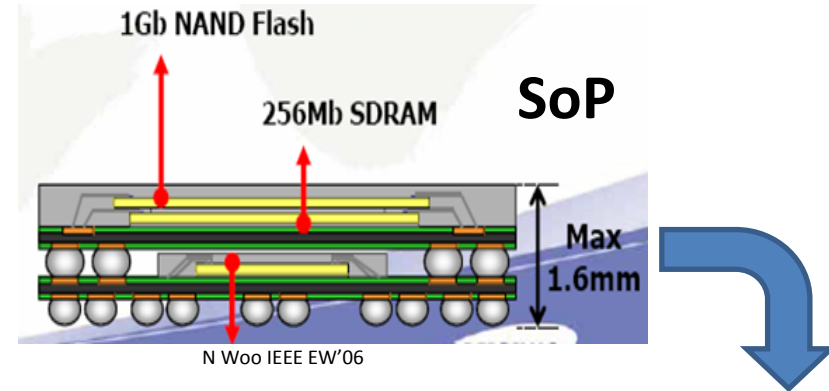
Smart Transducer & Aml
IEEE1451

Thermal Mapping







V.T. Thanh et al./ Journal of Food Engineering xxx (2007) xxx-xxx

Technology Drivers



Motivations & Directions

- Synergy between technology and applications
- AI  Aml  Smart Environment
- Growth in hardware resources result in better environment for embedded Intelligence
- SW Defined Radio  Cognitive Radio 
Cognitive network
- These encourage further attention to
 - system performance like energy consumption, routing, etc. or
 - interaction with application like localization, data streaming, response to environment
 - Heterogeneity & Interoperability in dealing with the numerous protocols and RF standards
- Significant accumulation of silicon and SW at sensor level
 - How could sensor embedded intelligence Helps?

Possible Involvement with PlanetLab

- Possible use of available resources
 - Modelling tools
 - Data collection of existing sensor Networks
 - Utilization of data centres
- Testing architectures and solutions relevant to Sensor Networks and Ubiquitous Coms
- Contribution to the establishment of testbeds
- Joint projects with other Universities