



Enterprises University of Pretoria deploys multi-disciplinary teams of experts that provide innovative research and advisory services. Most of our solutions are customised and draws on the latest best practice as informed by science and evidence.

Our ability to engage with and solve current real-world challenges on a day-to-day basis makes us a business partner of choice – both locally and internationally.

#### CORE COMPETENCIES

- Advanced Wireless Sensor Network (WSN) and communication solutions for industrial applications:
  - Physical network level, including sensor hardware/nodes and communication, cognitive radio and energy harvesting
  - Logical network level, including localisation, mobility, routing, intelligence and security
  - Application level, including application of the above in industrial environments
- Computer and communication networks, modelling and analysis
- eHealth, elderly monitoring, fall detection and Body Area Networks (BAN)
- Information, network and system security
- Internet of Energy, including smart buildings
- Internet of Farms, including smart agriculture and cropping
- Internet of Things (IoT) and sensor technologies for smart cities, including connected cars and intelligent transportation systems and modelling
- IoT-based Smart Water Management System (SWMS) for water loss reduction and water quality control

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*Shifting knowledge to insight*



## CORE COMPETENCIES

- Large-scale IoT-based Cyber Physical System (CPS)
- Low-Power Wide Area Networks (LPWAN)
- Machine learning
- Mathematical modelling of communication systems
- Mobile health
- Radio-Frequency Identification (RFID) and smart cards/tokens
- Sensor fusion
- Signal processing
- Smart miner safety systems for underground mines
- Software Defined Wireless Sensor Networks (SDWSN) and Network Function Virtualisation (NFV)
- Wireless communication
- Wireless Sensors Networks (WSN), including protocols and applications

## COMPANY PROFILE

Having played a profound part in the history of South Africa for more than 100 years, the University of Pretoria boasts a lasting legacy that endures through a cluster of innovative and multidisciplinary services rendered through Enterprises University of Pretoria.

Our products and services translate into increased productivity and enhanced customer service excellence within any industry. Drawing on the knowledge of academic and industry

experts from the University of Pretoria, our track record includes high-quality, customised practical solutions that set us apart from a traditional skills development and research organisation. With some of South Africa's most acclaimed academics and thought leaders on our teams of course leaders and research specialists, we ensure that our clients continuously engage in ground-breaking knowledge transfer – *shifting knowledge to insight*.

## WHY PARTNER WITH US?



A single point of entry for all training, research and advisory services.



Access to all knowledge outputs from the University of Pretoria.



Personalised services to achieve unique business and professional development goals.



Innovative solutions for targeted training and critical business insight.



An extensive international footprint spanning six continents.



Draw from leading industry experts and South Africa's finest thought leaders.



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## PROFESSIONAL MEMBERSHIPS



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