

قسم هندسة الاتصالات والحاسبات

الرؤية

يسعى البرنامج الى تخريج مهندسين قادرين على البحث والابتكار في مجال هندسة الاتصالات والحاسبات محليا واقليميا ودوليا مما يساهم في نهوض الصناعة ورفاهية المجتمع.

الرسالة

يساهم برنامج هندسة الاتصالات والحاسبات في إعداد خريجين متميزين قادرين على المنافسة والبحث العلمي والتطوير مما يلبي احتياجات سوق العمل محلياً واقليمياً في إطار من القيم المجتمعية والاخلاقية

الاتجاهات البحثية للقسم

| التخصص | فرع التخصص | المجالات البحثية |
|---------------|--------------------------------------|---|
| Communication | Digital Communication | <ul style="list-style-type: none"> Enhancement the resolution of digital images. Reduce interference in digital subscriber lines. Digital image processing. |
| | Mobile Communication | <ul style="list-style-type: none"> Channel Estimation Cognitive Radio Security in wireless communication Increase the network speed in transmitting audio and video signals and data |
| | Signal Processing | <ul style="list-style-type: none"> Image Processing, Speech Processing Data Compression |
| | Microprocessors and its Applications | <ul style="list-style-type: none"> Advanced microprocessor architectures Advanced microprocessors and its applications in communication systems. |
| | Electronic Engineering | <ul style="list-style-type: none"> VLSI RF Electronics |
| Computer | Artificial Intelligence | <ul style="list-style-type: none"> Machine learning Natural Language Processing (Arabic based machine understanding and language translation) Deep learning Computer vision |
| | Software Engineering | <ul style="list-style-type: none"> Service oriented architecture SOA (Systems: Optimization, Reliability and Adaptation) Context-Aware Pervasive Computing Agent-oriented software abstractions |

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| | | <ul style="list-style-type: none"> • ERP (Enterprise Resource Planning) |
| | <p>Computer Networks</p> | <ul style="list-style-type: none"> • Network operations and management. Network architecture and design • Network flows and Security • Routing algorithms • Network standards and protocols • Next Generation Internet and Related Technologies • Network simulation and emulation • Network coding |
| | <p>Computer Organization & Architecture</p> | <ul style="list-style-type: none"> • Computer Architecture • Instruction-Level Parallelism • Memory and Cache Architectures • On-Chip Interconnects • Multi-core and Multithreading • Processor Micro-architectures |
| | <p>Modeling and Simulation of Engineering Systems</p> | <ul style="list-style-type: none"> • Modeling and simulation of multi-core architectures • Modeling and simulation of DSP architectures |
| | <p>Operating Systems</p> | <ul style="list-style-type: none"> • Multi-Core Operating Systems Kernels • Distributed storage systems • Randomized algorithms • Combinatorial optimization and approximation algorithms • Testing and Verification of Algorithms |

القائم بأعمال رئيس القسم

د. السيد محمد راشد