

## Research plan for five years

2017–2022

- Aims:

The IT research plan is set up to cope with the need of the market and industry and in the meantime satisfy the academic standard mythologies and norms of research work in the academic institutions. The current research plan aims to cover all aspects that best serve the two objectives. IT also aims at matching the new national and international research trends.
  - Action: Guided research toward solving the common problems in different Information Technology areas.
  - Time Limits: 5years plan 2017–2022
  - The purpose of the Information Technology major at the faculty of computers and information. Assiut University is to provide a clear academic focus for the discipline of Information technology. The primary faculty members in our department have been achieve in their research and teaching but additional faculty members are needed to better achieve the goals of the department research plan besides the teaching work load. We seek ten additional faculty members over the next five years. Our primary focus is on young faculty members who are likely the make fundamental advances in core IT research areas which are as follows :
- 1) Mobile computing, M-learning, M-management, M-commerce applications and variations,
  - 2) Wireless, mobile, ad hoc, sensor networking, server less architecture and variations,
  - 3) Networked embedded systems, RFID applications and variations ,
  - 4) Cloud computing ,fog computing, applications and variations,
  - 5) Enterprise architecture, data architecture, data science, scientific data management and variations,
  - 6) Multimedia systems, voice control and variations,
  - 7) Vision, virtual reality, augmented reality and variations,
  - 8) Broadcasting, media technologies and variations,

- 9) Robotics, autonomous vehicles, automation and variations,
- 10) Human computer interaction (HCI), Intelligent interfaces, and variations,
- 11) Intelligent networks and variations,
- 12) Network hardware, software, algorithms architecture, analysis, design, implementation and variations,
- 13) Distributed hardware, software, algorithms architecture, analysis, design, implementation and variations,
- 14) Network protocols, programming, technologies, security, forensics, privacy and variations,
- 15) Network services, applications, operation, management and variations,
- 16) Web programming, systems, technologies and variations,
- 17) E-learning, E-management, E-commerce, economy of computer industry and variations,
- 18) Cyber, web, systems and applications security, adaptive security architecture and variations,
- 19) Internet of things (IoT) and variations,
- 20) Big data management, storage, configuration, analytics, and variations.

- Our Plan is to focus on a few fundamental areas from the above list every year
- The plan is administrated by the department head. It is reviewed annually by a faculty committee and revised every five years in a consultative process involving all faculty members and approval bodies.

Prof. Hosny Mohamed Ibrahim

IT Chairman

10/07/2017