

**Fields of Prize**  
**"Dr. Shawky Salem Prize for Knowledge Management  
and Informatics"**

**Granted by Academy of Scientific Research and Technology every year**

**\* Knowledge Management & Information Literacy:**

- Publishing Industry & Electronic Publishing.
- Electronic and Virtual Databases.
- Information System: Analysis & Design & evaluation.
- Information Sources & Knowledge Tolls.
- Information infrastructure: ICT: Organization & Technological changes.
- Communication & Networking:
  - LAN
  - WAN
  - INTRANET
- Information Centers & Libraries Information Focal points.
- Information Transfer & Transmission.
- Decision support System & operations.
- Life long learning & self assessment, Lifelong education & distance learning related Information industry.
- Information literacy related educational technology & education processes  
Information Industry Literacy definitions, Information literacy:
  - Education
  - Economic
  - Health
- Internet navigation & Archives.
- Reading Society & Culture (Traditional & Electronic)
- Intellectual properties & royalties of literary works.
- Paperless Society & organizations.
- MIS & GIS.
- Knowledge Management & Civilization History.
  - History of the book.
  - History of printing
  - Development of the Media of Information
  - Researches & Dissertations
- Media History & Development:
  - Broadcasting
  - Newspapers & magazines

## **TV & Satellite Channels**

### **Videotext**

- **Public Network Services.**
- **Educational games which lead to real education and Brain storming.**
- **Master Teacher: information literacy expert to teach teachers.**
- **Exchange of information, ideas & formal, informal education**
- **Synthesis & Anti Synthesis.**
- **Digital, electronic & virtual library.**
- **FAIFE**
- **Information standards & specs.**
- **Information industry & society movement.**
- **Internet Features: chatting & affects to social situation.**
- **Web designing & web sources.**

### **\* Libraries, information and society:**

- **Development of information services.**
- **Hybrid and digital libraries.**
- **Information literacy and e-leaning.**
- **Metadata and distributed searching.**
- **Library collaboration and resource sharing.**
- **Library history.**
- **Training and professional development.**
- **Academic and public libraries.**
- **Special libraries and collections.**
- **Information strategy and knowledge management.**
- **National and international Information policy.**

### **\* State of the art in distributed enterprise applications**

- **Middleware Standards and architectures, such as CORBA, J2EE and NET.**
- **Application server solution deployment and maintenance.**
- **Industry specific solutions, e.g. for aerospace, automotive, finance, logistics, Medicine and telecommunications.**
- **Innovative applications.**

### **\* Integration of multimedia technologies**

#### **\* Information and Data Integration:**

- **Business object model methodologies and approaches.**
- **Taxonomies, anthologies and business knowledge integration.**

- **Master data management for the real-time enterprise (RTE).**
- **Information modeling and transformation across heterogeneous resources.**
- **Integration of legacy applications and information system.**

**\* Other subjects (ICDL):**

- **Digital library infrastructure and architectures.**
- **Planning development, and management of digital libraries.**
- **Digital library models.**
- **Content organization and knowledge management.**
- **Collaboration and localization.**
- **Information storage and retrieval for global access.**
- **Multimedia processing and retrieval.**
- **Multi-lingual information retrieval system and Unicode.**
- **Digital preservation.**
- **Standards in digital library design and development.**
- **Digital library services.**
- **Digital library network and information sharing.**
- **E-publishing.**
- **Economic issues of digital libraries and e-learning.**
- **Tools and techniques for digital libraries.**
- **Intellectual Property.**

**\* Integration of embedded and mobile interactions**

**\* Mobile ad hoc networks (MANETs)**

**\* Enterprise computing metrics and environment:**

- **Performance prediction and measurement.**
- **Quality of service (QoS) and cost of service (CoS).**
- **Total cost of ownership (TCO) for enterprise computing implementations.**
- **Evolution and management of enterprise computing systems.**
- **Human and social organizational factors in enterprise computing**

**\* SW engineering approaches to distributed enterprise applications:**

- **Model driven architecture (MDA) and UML based approaches.**
- **Modeling based on domain specific languages (DSL).**
- **Component based approaches compliant with the OMG Enterprise Collaboration architecture (ECA).**
- **Service Oriented Architectures (SOA) and Enterprise Service Architectures (ESA).**
- **Collaborative development and cooperative engineering issues.**
- **Organization and principles of software factories.**

**\* Web services:**

- **IT aspects of inter-enterprise collaboration and virtual enterprises.**
- **Evolution of web services specifications (e.g., WS-Addressing).**
- **Service policies and contract definitions and enforcement.**
- **Service registries.**
- **Universal description, discovery and integration (UDDI) and its extensions.**
- **Semantic service annotations and descriptions.**
- **Emerging standards for semantic web services.**

**\* Business Process Management (BPM) Systems:**

- **Business Process Modeling and Metamodels.**
- **Business Process Monitoring and Intelligence.**
- **Dynamically configurable BPS.**
- **People integration in BPM System.**

**\* Business Rules:**

- **Business rules languages and inference systems.**
- **Business rules components.**
- **Rule driven business process engines.**

**\* Identity Management and Distributed Access Control:**

- **Security policy definition and description languages.**
- **Security policy interoperability.**
- **Distributed and federated access control.**
- **Network public key infrastructures.**
- **Service provisioning.**
- **Inference mechanisms for policy enforcement.**