

Recent advancements in building UNISEC Tunisia

Small satellite technologies will be an important development maker of specific information technology applications in the next decade. Tools, means, production control and lunch accessibility of nanosatellite will allow developing new applications and new services. The impact on society is even more important when countries and governments in developing attached to them. In consequence, with other universities and research centers, we founded a consortium to create UNISEC Tunisia. The group is sensitive to the importance of new ideas and original technological developments especially for our region needs and local development models.

We present in this paper the recent activity developments of the project and perspectives.

The 4 universities and the Tunisian Telecommunication Studies and Development Center "CERT" in the context of UNISEC introduce new training and new human benefit projects.

We organized special seminars, with a prestigious scientist, to PhD students and senior researchers. To develop technical means, the ground station is under construction at the University of Monastir and cubesat mounting laboratories at the University of Sfax.

New orientation of microelectronics, signal processing, energy distribution, RF and antennas subjects are conducted in relation with nanosatellite design and application. We develop original new microsensors and microsystem elements for space or ground segments.

As an important project, we are currently developing a new mission with CRTEAN to control water quality and quantity. CRTEAN is the Regional Centre for Remote Sensing of northern Africa states. It depends on UN-ECA and is constituted by 7 countries in the sub region of North Africa: Algeria, Libya, Morocco, Mauritania, Tunisia, Egypt and Sudan.