



End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

Ambassador of SDG 2:

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<https://medforest.net/2022/07/29/enhancing-fig-tree-diversity-for-sustainable-mediterranean-agriculture/>

The PRMETEO project aims to establish a cross-border network between Italian and Tunisian researchers, companies and other stakeholders involved in one of the strategic sectors for the Sicily-Tunisia macro-region: the typical Mediterranean tree crops - citrus, almond and olive - in order to collaborate in the development of innovative and sustainable technical solutions for the protection of these crops against quarantine pathogens or emerging pests, which threaten their profitability and survival. The results will be useful for guiding agricultural policies, strengthening phytosanitary services, increasing production efficiency, competitiveness and sustainability of these sectors and improving food safety quality standards.

The PROMETEO project, "A cross-border village: to protect Mediterranean tree crops by sharing knowledge"



The cross-border team is made up of eight partners, including the Università degli Studi di Catania (Dipartimenti di Agricoltura Alimentazione e Ambiente - Di3A, Scienze chimiche - DSC e Scienze Biomediche e Biotecnologiche - BIOMETEC) and the **University of Tunis El Manar (UTM)**, the Centre Technique des Agrumes (CTA), the Institut National de Recherche Agronomique (INRAT) in Tunis, the Agence Nationale de la Promotion de la Recherche Scientifique (ANPR), the Comune di Palazzolo Acreide, the Centro di Ricerca per l'Innovazione e Diffusione della Conoscenza (CERID) and Expergreen

AQUAPONIA Project



The main goal of **AQUAPONIA Project** is to develop an aquaponics system that integrates fish production with the cultivation of **medicinal plants**. Aquaponics is an integrated and sustainable solution for local agricultural production. AQUAPONIA is a project launched on March 2023 by the Higher Institute of Applied Biological Sciences (ISSBAT) supported by the Cooperation and Cultural Action Service of the Embassy of France and the Research Institute for Development within the framework of the APIS program, AQUAPONIA aims also to enhance research and



ISSBAT (UTM): Research unit on



A new Aquaponics unit at ISSBAT Research unit on Aquaponics which will allow our Students to familiarize themselves with this new technique of agriculture in Tunisia and to have Tunisian scientific statistics. Different varieties of 🌿 basil, Indian carnation 🌸 lettuce produced by our fish Tilapia

Production of 100% natural lettuce without any input or pesticide or added fertilizer, ONLY the fertilizer provided by our Tilapia.

INTERNATIONAL AWARD.....

PRIMA WEFE NEXUS Award



PrimaProgram
16 novembre 2022 · 🌐

Today, Atef Jaouani has received one of two **PrimaProgram WEFE Nexus Award** on "Towards Integrated and adapted Solutions for safe and available Water for the Southern Med countries in a context of CC and resource depletion."



INNOVATION

SOUAQI FARMS Project

An innovative agricultural project:
90% less water consumption and no pesticides

Engineering students from the ENACTUS ENIT, reached the semi-final of the national ENACTUS 2023 competition with the SOUAQI FARMS project.

SOUAQI FARMS is a project which specializes in "hydroponics" soilless agriculture, this technique allows to produce organic vegetables without pesticides, 3x faster and using 90% less water than traditional agriculture.



aluna.tn/un-projet-innovant-dagriculture-la-consommation-de-90-moins-deau-et-aucuns-pesticides/?fbclid=IwAR3deTY22zi89wX66z6K74x44PIvzUX5KawB0UKeonEDAzJmQc372xQaaTM

Diabetes | “Junior Enterprise”

15 décembre 2022



December 14th, the 5th edition of the local competition “ISTMT skills improvement” take place in a competitive environment. This edition was organized in collaboration with the Tunisian Association of Biomedical Engineering (ATGBM), the Association of Diabetic Children and Youth (ATAJED) and INJAZ Tunisia.

Our students presented their “Junior Enterprise” projects in a local competition. The students worked on innovative solutions to help the diabetic population.

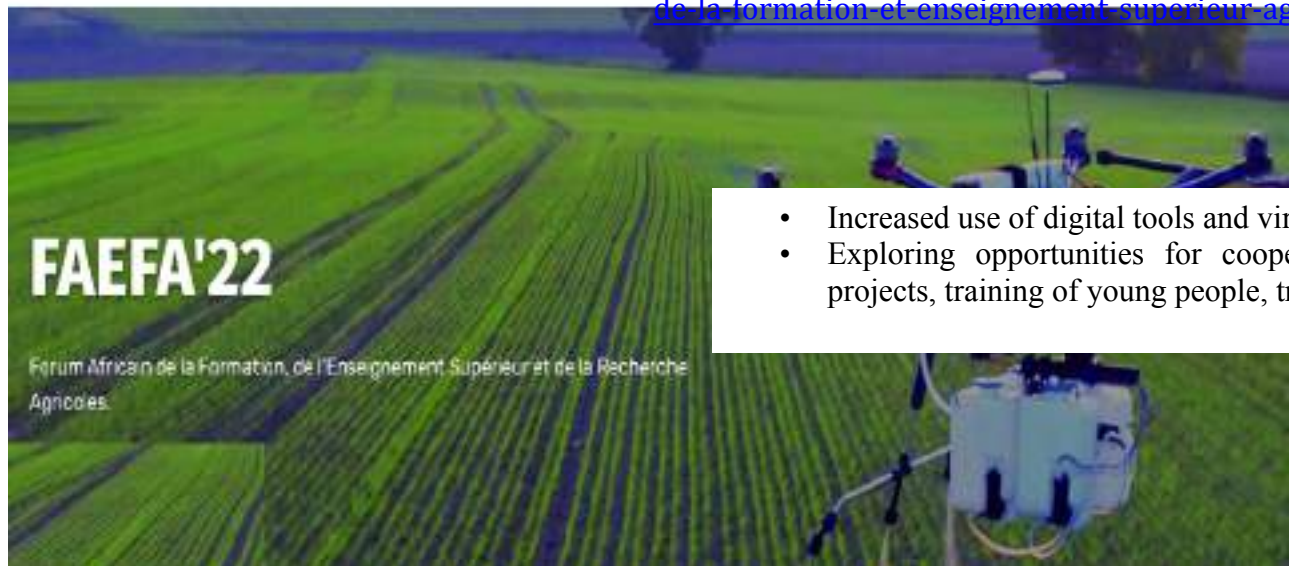
TRAINING...

The objectives of the Forum are:

- Strengthening exchanges between agricultural training, higher education and research institutions at African



<http://www.utm.rnu.tn/utm/fr/evenement-29-de-la-formation-et-enseignement-superieur-agricole>



- Increased use of digital tools and vi
- Exploring opportunities for coop projects, training of young people, tr

“DIGITAL GREEN: MATHEMATICAL BIOLOGY AND THEORETICAL ECOLOGY” RESEARCH SCHOOL .

Organized by:

Environment” team of the Laboratory of Mathematical and Digital Modeling in Engineering Sciences (LAM SIN) of ENIT

The International Center of Pure and Applied

Mathematics (CIMPA)

Ecole de recherche CTMPA

**Vert numérique :
Biologie mathématique et Ecologie théorique**

Hammanet,
24 Sep-03 Oct 2022

Coordinatrices :
N. Abdellatif (Tunisie)
S. Touzeau (France)

Comité scientifique

N. Abdellatif (Tunisie)
M. Bellasseoud (Tunisie)
A. Ben Abda (Tunisie)
H. Ben Aneur (Tunisie)
R. Bouhalla (Tunisie)
M. Hanique (Tunisie)
M. Moakher (Tunisie)
A. Rapaport (France)
T. Sari (France)

Comité d'organisation

N. Abdellatif (Tunisie)
S. Amdouni (Tunisie)
R. Fekih Salem (Tunisie)
W. Bouhals (Tunisie)
R. Jelassi (Tunisie)

Cours :

- Relations ressources-consommations : Du modèle de Christoffel aux modèles d'épidémiologie, J. Garreau, J. Lemaître, J. L. Lagarias (France).
- Oscillations on ordinary differential equations of mixed type, A. Poincaré (France).
- Etude mathématique et numérique de quelques modèles biologiques de Christoffel, A. Poincaré (France).
- Modélisation mathématique de la gestion des ressources naturelles, S. Bouali (Maroc).
- Mathematical and statistical methods for dynamical models in agriculture, S. Bouali (Maroc).
- Modélisation mathématique de la production durable des agroécosystèmes, J. Garreau (France).
- Les outils de la géomatique en milieu urbain, J. Lemaître (France).
- Transport de solutes en milieu poreux, J. Lemaître (France).
- Transport de solutes en milieu poreux, J. Lemaître (France).

Conférences

- Optimizing bacterial resource allocation metabolic production of biofactories, J. Lemaître (France).
- Optimisation de la stratégie de fertilisation du bétail pour le maintien de la santé des sols, J. Lemaître (France).

TRAINING OF TRAINERS (FP-FOR) IN GEOMATICS APPLIED TO AGRICULTURE AND THE ENVIRONMENT

On 21, 22 and 23 June 2022 at ENIT, school training under the ERASMUS+ GEOMAG project

Formation des Formateurs (FP-FOR) en GEOMATIQUE APPLIQUEE A L'AGRICULTURE ET L'ENVIRONNEMENT

du 21 au 23 JUIN 2022

UNIVERSITE DE TUNIS EL MANAR ENIT, SALLE 434 - TUNIS

Objectif Général : La formation de formateurs vise à accompagner les enseignants-chercheurs dans le domaine de la géomatique à concevoir l'ingénierie et les outils d'individualisation des parcours en utilisant les innovations pédagogiques et numériques ; de maîtriser les référentiels et les systèmes géodésiques et de connaître les sources d'information spatiale dans le monde.

Public cible : Les enseignants, les chercheurs et les formateurs en Géomatique

Programme :

- Jour 1 : Formation de formateurs en auto-formation (Sophie-Hélène GOULET, ENSG, Université Gustave Eiffel, Paris, France)
- Jour 2 : Les référentiels et les systèmes géodésiques (Serge BOTTON, ENSG, Université Gustave Eiffel, Paris, France)
- Jour 3 : Informations spatiales disponibles (Focus sur l'Open Source) (Aicha Chaïbi (SET Nabeul, Tunisie) & Guillermo Palacios, Université de Cordoue, Espagne)

The training of trainers aims to support the teacher-researchers to design engineering and tools to individualize pathways using innovations; educational and digital skills, mastery of repositories and knowledge of sources of spatial information in the world (Focus on Open Source).

WORKSHOPS....

WAFRA -Wireless Aquaponic Farming in Remote Area: A Smart Adaptive socio-economic solution

WORKSHOP: "AQUAPONICS A SUCCESSFUL EXAMPLE OF THE CIRCULAR ECONOMY IN URBAN AND RURAL AGRICULTURE."



The Institut Supérieur des Sciences Biologiques Appliquées de Tunis (ISSBAT, University of Tunis El Manar) organised, in the framework of the ERANETMED WAFRA -Wireless Aquaponic Farming in Remote Area: A Smart Adaptive socio-economic solution"-,project, and in collaboration with the EurAfricaine Française de Tunisie e d'Aquaculture de aquaponics entitled ul example of the urban and rural 31 March 2022,

University of Tunis El Manar (UTM)
LMHE, ENIT and ENIS/ENIT Laboratories organize

The international workshop on Water security and Technology Innovation in Hydro-Environmental Engineering

Organizing committee
Hass Chahra, President of the National Agency LMHE/ENIT National Council (LMHE, ENIT) Executive Director (2020), ENIT
Mouad Benabdellah, ENIT
Mouad Benabdellah, ENIT
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Mouad Benabdellah, ENIT
Mouad Benabdellah, ENIT
Mouad Benabdellah, ENIT
Mouad Benabdellah, ENIT

ENIT Amphi 800
Campus Ferhat
Hached, El Manar

15 July 2023
08:00 AM

Under the Auspices of the University of Tunis El Manar
ENIS/ENIT & LMHE/ENIT Laboratories organize the
International Workshop on Water security and Technology Innovation in Hydro-Environmental Engineering

July 15, 2023, National Engineering School of Tunis Amphi 800,
Campus El Manar, Tunis, Tunisia

Time	Activity	Speaker/Responsible
8:30-9:00	Registration	LMHE
9:00-9:30	Welcoming speech	Prof. Hass Chahra, President of the University of Tunis El Manar Prof. Mouad Benabdellah, ENIT Prof. Nour-Eddine Amouch, ENIT, FIC
Science Lecture and Talk (1 hour)		
9:30-10:00	A Universal Model for Remote Water Security in Rural Areas-Case of Tunisia	Prof. Hass Chahra, LMHE/ENIT Director of Modeling & Simulation and Research, ENIT
10:00-10:30	Hydro-ecology	Mr. Mikha Bekki, Senior Advisor of Hydrology, State University of Libyana
10:30-11:00	La sécurité de approvisionnement en eau en Tunisie (2008)	Mr. Abdellah BACHA, Senior Secretary of State for Water Resources of the Ministry of Agriculture
11:00-11:30	Case of water security and technology innovation in remote areas-Case of Tunisia	Prof. Hass Chahra, LMHE/ENIT Director of Modeling & Simulation and Research, ENIT
11:30-12:00	Development of a new Model of Modeling in Rural Tunisia (2008)	Prof. Hass Chahra, LMHE/ENIT Director of Modeling & Simulation and Research, ENIT
12:00-12:30	Analysis of the impact of the management practices on the water and sediment loads in the case of a remote area (2008)	Dr. Adel Anouar, Prof. Youssef Le Chevalier, ENIT Dr. Hass Chahra, LMHE/ENIT Director of Modeling & Simulation and Research, ENIT
12:30-13:00	Integrated groundwater management of the aquifers in the context of WAFRA (ENIT/ISSBAT project) (2008) (2008)	Dr. Fatma Toufik, FIC Senior Advisor of Hydrology & Water, ENIT

SEMINAR “WATER AND ADAPTATION TO CLIMATE CHANGE IN TUNISIA”.

Organized by the Laboratory of Economics of Sustainable Development, Natural Resources and Agriculture (LEDDRNA, FSEGT, UTM) and the Ministry of Agriculture the Wednesday, March 15, 2023, 9:00 a.m., – 2:00 p.m., FSEGT (UTM).



EAU ET ADAPTATION AU CHANGEMENT CLIMATIQUE EN TUNISIE



AssurCereals
 Programme de la Journée de la Sécheresse basée sur la pluviosité et l'évapotranspiration et services climatologiques

Partenaires
 ENET- APAD – CTAMA-DNCT- Pôle de compétitivité de Bizerte

Avantier n°2
 Indicateurs de la sécheresse basée sur la pluviosité et l'évapotranspiration et services climatologiques

Lieu : Pôle de compétitivité de Bizerte Date : 31/03/2023

Programme

- 08h30 Accueil des participants et mot de bienvenue du partenaire Pôle de compétitivité de Bizerte
- 09h00 Présentation partenaire ENET : Objectifs du projet et Indicateurs climatiques (SPT, SPEI, coefficient de productivité)
- 09h15 Discussion sur la pertinence des indicateurs et leur utilisation terrain
- 10h45 pause-café
- 11h00 Présentation partenaire DNCT : Etat de la sécheresse par des indicateurs de végétation satellitaires
- 11h15 Présentation partenaire ENCT : Perspectives pour la promotion des indicateurs climatiques et le Centre de service climatique pour le suivi de la sécheresse
- 11h30 Présentation partenaire CTAMA : Perspectives récentes de la cartographie d'assurance climatique en Tunisie
- 12h00 Présentation partenaire APAD : Expériences de suivi de sécheresse nationales
- 12h45 Discussion sur les besoins en services climatologiques
- 13h45 Clôture

WORKSHOP: “Rainfall and Evapotranspiration Based Drought Severity Indicators and Climate



WSC is calculated per decade and cumulated over the agricultural season at the same spatial resolution and by Imada of the study area.

The objective of the workshop was to: · present a set of results obtained by the ENIT team, in particular for the Zaghouan and Siliana governorates. · Present FIDAC's experience with drought insurance coverage. · Discuss the potential of these results in terms of climate service as advocated by the WMO. The Appears application for the extraction and exploration of samples ready for analysis was used for the processing of satellite data provided by the National Mapping and Remote Sensing Center (CNCT).

Mental health and Nutrition workshops



WORKSHOP « HEALTHY BASKET CONTEST »

Saturday, December 03, 2022

INST
sports
works
teache



WORKSHOP "FEED FOR FIT, EAT FOR STRESS BEAT", (ISTMT)



The goals of workshop are that students will learn about food and mental health, the consequences of poor nutrition, the role of different diets in the expression of mental health, and the potential for nutritional therapies. In addition, non-nutritional components (natural and additives as well as environmental toxins) of food will be explored to give the student an appreciation of the emerging importance of non-nutritive food components in mental health.



To keep students engaged during a workshop, Puzzle Games and interactive activities, were used.



Wednesday, 7th, December 2022 at "Amphi F

<https://www.facebook.com/photo?fbid=115433438064596&set=pcb.115433601397913>



COMPOST WORKSHOP



The research laboratory « Economic of Sustainable development, Natural resources and Agriculture L.EDDRNA (FSEGT,UTM) conducted in collaboration with ANGED a workshop teaching participating faculty, staff, and students how to build a compost tumbler, a fully sealed container used to mix composting



COMPOST WORKSHOP



VISITS FOR STUDENTS.....

Visit **agri-food industries**



ISSBTA: **Study trip to the agri-food industry** for future graduates of the Biotechnology degree course CQAH at the El Mazraa factory (. Leader of the Poultry Industry in Tunisia)

02/03/ 2023



ISSBAT: **VITALAIT** Industry Visit for Students November 2022

As part of its openness to its environment and to strengthen the skills of its future graduates ISSBAT organized a study industry visit for the benefit of its students in 3rd year Biotechnology.

Bachelor Course #CQPAH at the milk factory of #Vitalait Mahdia. During this visit with their teachers, our students had the Opportunity to:

- ✓ Discover in the field the processes of manufacturing bottled milk and tetrapack as well as butter
- ✓ Knowledge of food quality and safety management systems



ISSBAT: Visit of the National Bank of Genes (BNG) by



<https://www.facebook.com/photo?fbid=10158387114824013&set=pcb.10158387115179013>

Students visit retirement home “Dar al Osra Zouhair el Haddad”. 26/03/2022



The Higher Institute of Nursing Sciences of Tunis (ISSIT,UTM)) has organized an activity for our students to visit old home « Dar al Osra Zouhair el Haddad» .. The purpose of this visit is to educate the students to show care and passion for the elderly. A visit to old home is one of the necessary student activities in our school every year to promote the virtues of respecting the elderly. And also to make students understand that there will be some vulnerable groups who need everyone’s help in society.

