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המעבדה לחישה מרחוק
המכונים לחקר המדבר ע"ש יעקב בלאושוטיין
אוניברסיטת בן-גוריון בנגב
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Science from Above

October 15, 2018

Dear Colleagues,

Re: VEN μ S periodic news – October 2018

Below is the latest update from the VEN μ S project.

1. Thanks for all the colleagues who submitted abstracts for the First International VEN μ S End-users Meeting and Workshops to be held at Sede Boker Campus on Nov. 21-22, 2018. We have a very intensive and rich program for the 1st day and three workshops on atmospheric correction on the second day. Below is an advance draft of the program. Although no fee is requested for participating in the meeting, an early registration is requested, especially for the workshops and transportation. I would recommend to order accommodation at the Sede Boker Field School (<http://sdeboker.co.il/>) or at the variety of zimmer rooms (http://www.mapa.co.il/gnet/maps/map.aspx?rimx=129130&rimy=1029149&search_phrase=%EC%E9%F0%E4&subjectid=12&around_recordid=3888&external=true). In the next few days you will get a form to fill in with your details and preferences.
2. Thanks also for all colleagues who submitted a request for VEN μ S research sites outside Israel. All requests were transferred to CNES for evaluation.
3. We are happy to announce that the Israeli VEN μ S Products Website is ready (in beta version) at the following URL: <https://venus.bgu.ac.il/venus/>. Please follow the instruction detailed in section 4 of the attached document to register, order, and download the products (collection 1). Since this is a Beta version, please let us know whether you are facing any problems.
4. In a separate file we attached a list of more than 40 spectral indices along with their respective VEN μ S bands. These are subdivided to (1) Vegetation Indices; (2) Pigments and Canopy Water Content Indices; (3) Soil and Abiotic Indices; and (4) Water Indices.

Regards,

Manuel and Arnon

Scientific Program

Wednesday 21 November 2018 – Oral presentations

07:30 – *Leaving from Leonardo Hotel to Sede Boker Campus Ben Gurion University of Negev*

08:00 – 08:30 – *Registration*

08:30 – 09:15 Greetings

09:15 – 11:00 Session 1: The VEN μ S System

Gerard Dedieu

Overview of the VEN μ S scientific mission

Pierric Ferrier

VEN μ S: A Successful Very First Cooperation in the Space Domain between France and Israel

Arthur Dick

VEN μ S Image Quality Commissioning Phase

Arnon Karnieli, Manuel Salvoldi

VEN μ S observations over Israel

Ofra Ainemer

The VEN μ S web site

11:00 – 11:30 – *Coffee break*

11:30 – 13:30 Session 2: Agricultural and water consumption

David Bonfil, Itamar Lensky

Assessing In-season Israeli Wheat Development, Grain Yields and Quality on Macro and Micro Scales by VEN μ S data.

Yafit Cohen, Graff Nitsan., Saranga Yehoshua., Gogumalla Pranuthi, Vellidis

George., Liakos Vasileios., Arie Bosak, Snider John

VEN μ S Images for Estimating Water Status Measures and to Support Irrigation Decisions in Cotton

Offer Rozenstein, Nitai Haymann, Gregoriy Kaplan, Josef Tanny

Estimating Crop Water Consumption using a Time Series of Satellite Imagery

Andrew French, Charles Sanchez, Mazin Saber, Martin Porchas, Enrico Sanchez,

Using High-Frequency VEN μ S Data to Estimate Crop Cover and Evapotranspiration at Ak-Chin, Arizona

Maria Polinova, Keren Belinson, Anna Brook

Applicability of Multispectral UAV Imagery vs. Super-Spectral VEN μ S Satellite Imagery in Precision Agriculture

Assaf Chen, Valerie Orlov-Levin, Oz Elhurar, Moshe Meron

Combining satellite imagery with high-resolution aerial scan of field crops for precision irrigation management and yield forecast

13:30 – 15:00 Lunch / Official Opening of Venus Scientific Center

15:00 – 16:30 Session 3: Ecological applications

Noam Levin, Itamar Lensky, Efrat Sheffer, Gilad Weil, Shelly Elbaz



Classifying Woody Mediterranean Species using Spectral and Phenological Observations

Avi Bar-Massada, Eyal Weizman,

Establishment of a Network of Ground-truth Sites for the Estimation of Live Fuel Moisture Content using VEN μ S Imagery

Shay Adar, Marcelo Sternberg, Eli Zaady, Tarin Paz-Kagan, Zalmen Henkin, Ilan Stavi, Meni Ben Hur, Guy Dovrat, Efrat Sheffer Eli Argaman

Application of Remote Sensing Tools for Pasture Quantity and Quality in Mediterranean and Semi-Arid Grasslands using VEN μ S

Paul Kamoun, T. Dana-Picard, T. Feingersh

Long-term Monitoring of Vegetation and Water Cycles for Modeling of Mediterranean Ecosystem Functioning

Yaakov Garb

The Potential for Fusion of VEN μ S Coverage in a Long-term Study of Land Use Changes and their Relation to the Extent and Impacts of Waste Burning in the West Bank

16:30 – 17:00 Coffee break

17:00 – 18:20 Session 4: Atmospheric application/Education

Jean-Louis Roujean, Albert Olioso, Eric Ceschia, Olivier Hagolle, Marie Weiss

A Surface Albedo Product at High Spatial Resolution from a Combination of Sentinel-2 and (Forthcoming) VEN μ S Data: The Role of Surface Radiative Forcing from Agriculture Areas as a Major Contributor to an Abatement of Carbon Emission

Vladislav Dubinin, Tarin Paz-Kagan, Dan Yakir, Yagil Osem

Developing a New Approach of Atmospheric Correction for the VEN μ S Satellite

Yevgeny Derimian

Optimized processing of fine spatial resolution satellite observations using simultaneous synergetic characterization of aerosol and surface

Sivan Isaacson, Dan G. Blumberg, Simrit Maman

Education and Outreach Programs using VEN μ S Satellite Imagery

Thursday 22 November 2018 – Atmospheric correction workshops

07:30 – Leaving from Leonardo hotel

08:00-08:30 - Welcome and coffee

08:30 – 10:00 Natalya Panov

Correction for the VEN μ S images using the 6S program

10:00 – 10:30 Coffee break

10:30 – 12:00 Aimé Meygret, Gerard Dedieu

Correction for the VEN μ S images using the MAJA program

12:00 – 13:00 Lunch break at Sede Boker Campus



13:00 – 14:30 Rudolf Richter, Daniel Schläpfer

Atmospheric & Topographic Correction, ATCOR, Processing of VEN μ S Imagery

