

9TH WORKSHOP ON BIOSYSTEMS NEERI NOVEMBER, 6-10, 2023



BIOSYSTEMS FESTIVAL

> I INTERNATIONAL MEETING OF GRESA/ REQUIMTE SCIENTIFIC PARTNERS FOOD SECURITY AND CIRCULAR ECONOMY

5TH PET WEEK CONVERSATION ROUNDS ON CIRCULAR ECONOMY AND ECOLOGICAL BALANCE

Monday, 06 November, 2023 | 8:30am Instituto de Computação Universidade Federal Fluminense

REGISTRATION • IN-PERSON 8:30AM - 9:30AM ACTIVITY

OPENING CEREMONY • IN-PERSON ACTIVITY 9:30AM - 10:30AM **BIOSYSTEMS FESTIVAL**

OPENING CONFERENCE • IN-PERSON 10:30AM - 11:30AM

MORE INFORMATIONS:

www.pgeb.uff.br/web9.0

ACTIVITY Impact of Environmental Sciences on the Agenda 2030 Prof Dr Carlos Alberto Cioce Sampaio

(FURB/ CAPES, Brazil)

LUNCH BREAK 11:30AM - 2:00PM

PLENARY LECTURE I

2:00PM - 3:00PM

Utilization of defective arabica grains targeting oil and carbohydrates Prof Dr Claudia Moraes de Rezende (UFRJ, Brazil)







• REMOTE ACTIVITY - YOUTUBE CHANNEL



PLENARY LECTURE II 3:00PM - 4:00PM

• IN-PERSON ACTIVITY

The role of remote sensing technologies and AI in Food Security Prof Dr Mohamed AI Abed General Organization of Remote Sensing (GORS)

COFFEE BREAK 4:00PM - 5:00PM

SHORT COURSE I (PART I)

REMOTE ACTIVITY GOOGLE MEET

5:00PM - 7:00PM

Al and Quantification of Carbon Credits in Sustainable Production Processes

Engineer Leonardo Ricciardi, PhD Student (HEADS – Faculty of Medicine, University of Porto, Portugal) Global PMO Superintendent – COFCO International

SHORT COURSE II (PART I)

REMOTE ACTIVITY GOOGLE MEET

5:00PM - 7:00PM

Funding sources for scientific projects: search for funding notices and project organization for submission

Prof Dr Marcos Teixeira (School of Engineering, PGEB/UFF, Brazil)





Tuesday, 07 November, 2023 |8:30am Instituto de Computação Universidade Federal Fluminense

ROUND TABLE CONFERENCE I

• IN-PERSON ACTIVITY

8:30AM - 11:15AM

Use of agricultural by-products: Contributing to food security, circular economy, and environmental preservation

CHAIRPERSON

Prof Dr Maria Beatriz P. P. Oliveira (Faculty of Pharmacy, GRESA/REQUIMTE, University of Porto, Portugal)

SPEAKERS

Prof Dr Naomi Kato Simas (Faculty of Pharmacy, UFRJ and PGEB/UFF Brazil) Innovation opportunities for the pharmaceutical and cosmetic area from the agricultural system by-products

Prof Dr Durval Dourado Neto (ESALQ/USP, Brazil) Sustainability of Agricultural Systems: Evolution and perspectives

Prof Dr Sebastião R. S. Pinheiro (Depart. of Education and Social Development, UFRS Brazil) Agri"culture", Agri(Agro)"business", Agri(Agro)"ecology": sustainability?

BREAK 11:15AM - 11:30AM

PLENARY LECTURE III

11:30AM - 12:30PM • REMOTE ACTIVITY - YOUTUBE CHANNEL Reincorporation of waste from the frozen vegetable industry into the food chain through the production of flours and their incorporation into bakery products

Prof Dr Manuel Álvarez-Ortí (Universidad de Castilla-La Mancha, Spain)

LUNCH BREAK 12:30PM - 2:00PM

PLENARY LECTURE IV

• IN-PERSON ACTIVITY

2:00PM – 3:00PM Dialogues with the Dimensions of Sustainability

Prof Dr Vitor Ferreira (Graduate Program in Sciences Applied to Health Products, Faculty of Pharmacy, UFF, Brazil)





PLENARY LECTURE V

• REMOTE ACTIVITY - YOUTUBE CHANNEL

3:00PM - 4:00PM Use of Sweet Potato Peels as a Potential Antioxidant and Antidiabetic Agent

Prof Dr Isabel S. Carvalho (Faculty of Sciences and Technology University of Algarve, PT)

COFFEE BREAK 4:00PM - 5:00PM

POSTER SECTION I

• REMOTE ACTIVITY - YOUTUBE CHANNEL

4:00PM - 6:00PM

Areas: Environmental Management Natural Systems Agricultural systems

SHORT COURSE II (PART II)

REMOTE ACTIVITY GOOGLE MEET

5:00PM - 7:00PM

Funding sources for scientific projects: search for funding notices and project organization for submission Prof Dr Marcos Teixeira

(School of Engineering, PGEB/UFF, Brazil)





Wednesday, 08 November, 2023 |9:00am Instituto de Computação Universidade Federal Fluminense

PLENARY LECTURE VI

• REMOTE ACTIVITY - YOUTUBE CHANNEL

9:00AM - 10:00AM

Silverskin: a still underexplored coffee by-product **Dr Rita Carneiro Alves** (GRESA/REQUIMTE/LAQV, University of Porto, Portugal)

PLENARY LECTURE VII

IN-PERSON ACTIVITY

10:00AM - 11:00AM

Importance of organizing Big Data Sets in the Food Industry

Prof Dr Carla Barbosa (Polytechnic Institute of Viana do Castelo, GRESA/REQUIMTE, University of Porto, Portugal)

BRFAK 11:00AM - 11:30AM

KEYNOTE SECTION I

• REMOTE ACTIVITY - YOUTUBE CHANNEL

11:30AM - 12:30PM

Chairperson: Prof. Dr. Maria Beatriz Oliveira, Porto University,

Portugal 11:30 às 11:45h - Dra. Asal Fathi (REQUIMTE/LAQV, FFUP) -"Development of Modified Nano-Phytosomes Loaded with an Enriched Coffee Silverskin Extract".

11:45 às 12:00h - Profa. Dra. Alberta Araújo (CISAS - Instituto Politécnico de Viana do Castelo/CEB - Centre of Biological Engineering, Universidade do Minho, Portugal) "Influence of goat milk pre-treatment with pulsed electric fields on cheese quality".

12:00 às 12:15h - Thiago Freitas Soares (PhD Student, REQUIMTE/LAQV, FFUP) - "From an environmental concern to a precious source of bioactive compounds: the possible agro uses of the olive oil industry by-products"

12:15 às 12:30h - Thais Teixeira de Oliveira (Nutricionista - LaBiMFar, Faculdade de Farmácia, UFRJ) - "Peanut bran as a potential for producing bio-based products".

12:30h - Encerramento

LUNCH BREAK 12:30PM - 2:00PM





ROUND TABLE CONFERENCE II

• IN-PERSON ACTIVITY

11:30AM - 12:30AM

Assessment of soil Carbon stocks and Carbon credits: Methodologies and public policies

CHAIRPERSON

Prof Dr Kenny Tenizaki Fonseca (Institute of Geosciences, UFF, Brazil)

SPEAKERS

Dr André Marcelo de Souza (EMBRAPA SOLOS, Rio de Janeiro, Brazil)

Alternative methods for determining total Carbon in the soil for evaluating Carbon stocks

Dr Telmo Borges Silveira Filho (Secretary of State for Environment and Sustainability, Government of the State of Rio de Janeiro, Brazil)

Public policies aimed at assessing Carbon stocks in the soil and Carbon credit payment initiatives for family farming in Rio de Janeiro

LUNCH BREAK 12:30PM - 2:00PM

PLENARY LECTURE VIII

• REMOTE ACTIVITY - YOUTUBE CHANNEL

2:00PM - 3:00PM

Extraction of Bioactive Compounds from Agricultural Waste and Encapsulation of Herbal Extracts on Lipid-Based Nano/Microcarriers

Prof Dr Samad N. Ebrahimi (Department of Phytochemistry, Medicinal Plants and Drugs Research Institute, Shahid Beheshti University – Iran)

PLENARY LECTURE IX

• IN-PERSON ACTIVITY

3:00PM - 4:00PM Agroecological, Integrated and Sustainable Production: A social technology for building Food Security

Prof Dr Oliver H. Naves Blanco (Associate Researcher at UFMT, Brazil)

COFFEE BREAK 4:00PM - 5:00PM





POSTER SECTION I

• REMOTE ACTIVITY - YOUTUBE CHANNEL

4:00PM - 6:00PM

Areas: Environmental Management Natural Systems Agricultural systems

SHORT COURSE III (PART I)

REMOTE ACTIVITY GOOGLE MEET

5:00PM - 7:00PM

DEA model for measuring performance in biosystems

Prof Dr Lidia Angulo Meza Dr Elton Oliveira (PGEB/ UFF, Brazil)





Thursday, 09 November, 2023 |8:00am Instituto de Computação Universidade Federal Fluminense

SHORT COURSE IV (PART I) CLIN CROP FIELDS - NITERÓI, RJ

• IN-PERSON ACTIVITY

2:00PM – 6:00PM Agroecological farming system: Implementation and advantages for the environment and human health

Prof Dr Sebastião R. S. Pinheiro (Depart. of Education and Social Development, UFRS, Brazil) Prof Dr Oliver H. Naves Blanco (Associate Researcher at UFMT, Brazil)

PLENARY LECTURE X

• REMOTE ACTIVITY - YOUTUBE CHANNEL

9:00AM - 10:00AM

8:00AM - 12:00PM

BIO-Valorization of Food by-products through ecosustainable approaches

Prof Dr Chis Maria Simona (Department of Food Technology, Faculty of Food Science and Technology, University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Romania)

PLENARY LECTURE XI

• REMOTE ACTIVITY - YOUTUBE CHANNEL

10:00AM - 11:00AM

Pressurized Fluid Extraction Process as an Eco-Friendly Approach to Obtaining Biocompounds Prof Dr Klebson Silva Santos

(Núcleo de Estudos em Sistemas Coloidais (NUESC)/ Instituto de Tecnologia e Pesquisa (ITP), SE, Brazil)

PLENARY LECTURE XII

• REMOTE ACTIVITY - YOUTUBE CHANNEL

11:15AM - 12:15PM Nutritional Foods from Vegetable Peels: Turning Waste into a Luxury Prof Dr Evelin Manoel (Graduate Program in Pharmaceutical Sciences Faculty of Pharmacy, UFRJ - Brazil)

LUNCH BREAK 12:15PM - 2:00PM





PLENARY LECTURE XIII

• REMOTE ACTIVITY - YOUTUBE CHANNEL

2:00PM – 3:00PM Food sustainability: edible insects, a nutritional, environmental, and economic approach

Prof Dr Carolina Oliveira de Souza (Graduate Program in Food Science Faculty of Pharmacy, UFBA, Brazil)

PLENARY LECTURE XIV

• REMOTE ACTIVITY - YOUTUBE CHANNEL

3:00PM - 4:00PM

Consumption of raw milk: enhancing knowledge about the riskbenefit ratio for human health regarding exposure to

mycotoxins Prof Dr Fernando Jorge dos Ramos (Faculty of Pharmacy – University of Coimbra, Portugal)

COFFEE BREAK 4:00PM - 5:00PM

SHORT COURSE I (PART II)

5:00PM - 7:00PM

REMOTE ACTIVITY GOOGLE MEET

Al and Quantification of Carbon Credits in Sustainable Production Processes

Engineer Leonardo Ricciardi, PhD Student (HEADS – Faculty of Medicine, University of Porto, Portugal) Global PMO Superintendent – COFCO International

SHORT COURSE III (PART II)

REMOTE ACTIVITY GOOGLE MEET

5:00PM – 7:00PM DEA model for measuring performance in biosystems

Prof Dr Lidia Angulo Meza Dr Elton Oliveira (PGEB/ UFF, Brazil)





Friday, 10 November, 2023 |8:00am Instituto de Computação Universidade Federal Fluminense

SHORT COURSE IV (PART II) CLIN CROP FIELDS - NITERÓI, RJ IN-PERSON

ACTIVITY

2:00PM - 6:00PM Agroecological farming system: Implementation and advantages for the environment and human health

Prof Dr Sebastião R. S. Pinheiro (Depart. of Education and Social Development, UFRS, Brazil) Prof Dr Oliver H. Naves Blanco (Associate Researcher at UFMT, Brazil) SHORT COURSE V FIELD COURSE AT SCHOOL FARM - UFF

• IN-PERSON ACTIVITY

8:00AM - 12:00PM Drones: Theory and practice, and use at the Public University Prof Dr Róberson M. Pimentel and Prof Dr Fábio F. Dias (PGEB/ UFF, Brazil)

KEYNOTE SECTION II

8:00AM - 12:00PM

• REMOTE ACTIVITY - YOUTUBE CHANNEL

9:00AM - 12:00AM

Chairperson: Prof. Dr. Carla Barbosa – IPVC, Portugal

9 às 9:30h - Profa. Dra. Magnólia Martins Erhardt (UERGS) -"Artisanal cheese: legal aspects and valorization of local identity"

9:30 às 10h - Prof. Dr. Wemerson de Castro Oliveira (IFSUL) -"Artisanal cheese: Chemical, microbiological and sensory characterization for the valorization of the identity of producers of southern Brazil".

10 às 10:15h - Marlene Machado (PhD Student, REQUIMTE/LAQV, FFUP) -- "Exploring the prebiotic potential of a coffee silverskin extract".

10:15 às 10:30h - Juliana Barreto Peixoto (PhD Student, REQUIMTE/LAQV, FFUP) - "Coffee silverskin: a sustainable alternative with antidiabetic potential".

10:30 às 10:45h - Fagne Alves dos Santos (PhD. student, NUESC/ITP/UNIT) - "Valorization of grape residue: source of functional and pharmacological ingredients".

10:45 às 11h - Renata Andrade de Oliveira (Graduate Student, Programa de Pós-graduação em Bioquímica, IQ, UFRJ) -"Orange residues: An opportunity in biotechnology and circular economy".





11 às 11:15h - Pedro Paulo Lordelo Guimarães Tavares (PhD. student, Programa de Pós-graduação em Ciência de Alimentos, Faculdade de Farmácia, UFBA) - "Nutritional Enrichment of Zophobas atratus Larvae (Insecta, Coleoptera) Reared with Flaxseed Cake".

11:15 às 11:30h – Elizabeth Santos Pereira (Graduate Student – Natural Systems, PGEB, UFF) – "Studies on Sea Level Variations in the Municipality of São Francisco de Itabapoana/RJ".

11:30 às 11:45h – Thiago Heidi Horita (Graduate Student – Agricultural Systems, PGEB, UFF) – "Soil water balance models for sensitivity analysis and inverse problem solving".

11:45 às 12h – Júlio Cesar Menezes da Silva (Graduate Student – Environmental Management, PGEB, UFF) – "Socio-environmental vulnerability index applied to river overflows in Araruama-RJ".

12:00h - Encerramento

LUNCH BREAK 12:30PM - 3:00PM

AWARDS' CEREMONY AND CLOSING CEREMONY

• REMOTE ACTIVITY - YOUTUBE CHANNEL 3:00PM - 5:00PM

Saturday, 11 November, 2023 |8:00am Universidade Federal Fluminense

SHORT COURSE IV (PART III) CLIN CROP FIELDS - NITERÓI, RJ

• IN-PERSON ACTIVITY

8:00AM - 12:00PM 2:00PM - 6:00PM

Agroecological farming system: Implementation and advantages for the environment and human health

Prof Dr Sebastião R. S. Pinheiro (Depart. of Education and Social Development, UFRS, Brazil) Prof Dr Oliver H. Naves Blanco (Associate Researcher at UFMT, Brazil)





