



Gheorghita Emanuel Armanu

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Gender: Male **Date of birth:** 20/01/1997 **Nationality:** Romanian

EDUCATION AND TRAINING

[01/07/2022 – 31/12/2022] **Research assistant in project "Bio-based porous materials for hydrogen storage and environmental applications"**

Technical University Gheorghe Asachi

Address: Boulevard Prof. Dimitrie Mangeron, 700050, Iași, Romania

[01/11/2022 – 31/10/2023] **Erasmus+ traineeship mobility - Visiting PHD Student**

Helmholtz Centre for Environmental Research - UFZ <https://www.ufz.de/>

Address: Permoserstraße 15, 04318 Leipzig, 04318 , Leipzig, Germany

Main subject / occupational skills covered:

Interested in bioremediation of environmental factors using immobilized carbonaceous porous material. Wastes from agriculture (wheat straws and vine shoots and stems) and forestry (spruce bark) got an important role in obtaining value added products, especially in the last 2 decades. Therefore, using thermochemical processes (e.g., HTC and pyrolysis) i try to develop a support material for immobilization of Pseudomonas strains. This mixture of porous material-bacteria can improve the soil quality and also accelerate the biodegradation of toxic compounds.

[01/10/2021 – 2024] **Doctor of Philosophy - PhD in Environmental Engineering**

Technical University "Gheorghe Asachi" Iasi <https://www.tuiasi.ro/?lang=en>

Address: 67 Profesor Dimitrie Mangeron Boulevard, 700050, Iași, Romania

Main subject / occupational skills covered:

This research focuses on developing a carbonaceous porous material from waste biomass which followingly is immobilized by Pseudomonas strains. The new material obtained, namely hydrochar serves as an adhesion structure (shelter) for bacterial communities which can improve their survivability and degradation rate of pollutants. Therefore, the new immobilized porous material wants to bring in the spotlight a new way of soil bioremediation and also a circular bioeconomy transit towards a cheaper and environmental friendly way to decontaminate polluted environmental factors.

[01/09/2020 – 30/04/2021] **Erasmus+ traineeship mobility**

Uppsala Universitet <http://www.iob.uu.se/forskning/miljotoxikologi/>

Address: Evolutionsbiologiskt Centrum EBC, Norbyv. 18A, 752 36 UPPSALA, Uppsala, Sweden

Field(s) of study: Natural sciences, mathematics and statistics

Thesis: Monitoring Vibrio natriegens growth in a microfluidic device

Main subject / occupational skills covered:

The main objective of the internship was to elaborate my master thesis. For that I utilized a microfluidic device called "mother machine" which allows the single-cell studies. The research took place at the Environmental Toxicology department, E.B.C. campus. This research involved the analysis of bacteria *Vibrio natriegens*, an ultrafast-growing bacteria and next-generation workhorse for biotechnology. Using the "mother machine" device, I aimed to observe the changes that occur in single-cell growth inside the dead-end microchannels of this chip. This device allowed me to investigate single-cell physiological parameters like growth rates, cell surface, dry mass and response to foreign chemicals on the single cell level. Using an automated framework I tried to solve and facilitate the analysis of phase contrast images taken in high-throughput within these devices. Doing this research will advance our understanding of the role of environmental chemicals on single bacterial cells.

[17/01/2020 – 10/07/2020] **Erasmus+ studying mobility**

Uppsala Universitet <http://www.ieg.uu.se/limnologi/>

Address: Evolutionsbiologiskt centrum (EBC), Norbyvägen 18 D, Norbyvägen 18 D, 752 36 Uppsala, Uppsala, Sweden

Main subject / occupational skills covered:

Exchange student at Uppsala University for the spring semester. Enrolled in the department of Ecology and Genetics with a focus on limnology and genetics.

[22/08/2022 – 28/08/2022] **Youth Exchange INOVYOUTH-EXCHANGE**

INOVTERRA-Associação para o Desenvolvimento Local

Address: Rua Nova - Vila Pouca, 3610-074, Tarouca, Portugal

Main subject / occupational skills covered:

Promote the development of key competences that encourage rural youth; Bringing young people closer to rural dynamics, cultivating in them a sense of environmental responsibility; Appeal to active citizenship through the direct participation of young people from different social contexts in the decision-making process in community matters

[01/09/2019 – 01/07/2021] **Master's degree in Biotechnology**

„Alexandru Ioan Cuza” University of Iași

Field(s) of study: Natural sciences, mathematics and statistics : *Biology Environmental sciences*

Thesis: Monitoring *Vibrio natriegens* growth in a microfluidic device

Main subject / occupational skills covered:

Along these 2 years of master degree in Cellular and Microbial Biotechnologies I had a broadly variety of disciplines strongly correlated with the medical, environmental and industrial branches. The theoretical part (40%) was completed by the practical part in the laboratory (60%). During my master I went for 3 semesters abroad at Uppsala University, mainly focusing on research and development. Also, I participate at many seminars and webinars related to cutting edge technologies in medicine and microfluidics. During my master I had a highly interest in wastewater treatment technologies and microfluidic devices. My final GPA is 3.65 (European score 9.12).

[2016 – 2019] **Bachelor's degree in Environmental Science**

„Ștefan cel Mare” University

Address: Suceava, Romania

Thesis: Monitoring water quality in municipal wastewater treatment plant from Suceava

Main subject / occupational skills covered:

In this three years of bachelor degree i've accumulated a wide range of experiences. The theoretical part was combined with the practical studying. Starting from first year i attended to different presentation related to ecology and forestry. I was involved in many volunteer activities, also i was very intrested in microbiology and ecotoxicology. My bachelor thesis was realised in partnership with municipality wastewater treatment plant in Suceava. Thesis elaboration involved: laboratory analysis, instalation checking and documentation. Principal aim of this monitorization activity was to verify if the treated water is in the corresponsing parameters to be evacuate back in the environment. Second aim was to monitorize the microorganisms diversity and viability in the biological stage. My final GPA it's 3.85 (european score 9,50).

[2011 – 2015] **Graduate diploma, Environmental technician and environmental quality protection**

Technical High School "Gheorghe Cartianu"

Address: Piatra Neamț, Romania

Field(s) of study: Environmental protection

WORK EXPERIENCE

[01/10/2021 – 31/10/2022] **Volunteer**

Erasmus Student Network

City: Iasi

Country: Romania

Main activities and responsibilities:

Involved in event planning, project management and editing tasks (working especially with Canva). I was trainer for an European project called "Food Wave - Empowering Urban Youth for Climate Action" (<https://www.foodwave.eu/>). My talk was about sustainability through genetically modified foods and their impact on long term.

[11/2018 – 06/2019] **Volunteer**

Agency for environmental protection of Suceava

City: Suceava

Country: Romania

Main activities and responsibilities:

Student volunteer with different duties in the biodiversity department. As well i had been involved in agency documentation, papers approbation for notice, accord and environmeantal authorization. A part of my work presumed monitoring flora and fauna in specific areas of Suceava county.

[01/07/2019 – 20/09/2019] **Wood warehouse receptionist**

Egger România

Address: Rădăuți, Romania

Main activities and responsibilities:

Responsible person with documentation for loaded trucks and quality classification. Also i had many outdoor activities such as: volume measurements for wood piles and wagons, quality verification of loaded trucks, truck weighing, monitoring bark beetles(Genus Ips) population using feromonal traps, sawdust and straw quality control.

LANGUAGE SKILLS

Mother tongue(s): Romanian

Other language(s):

English

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

DIGITAL SKILLS

My Digital Skills

SID4BIO | PBDP | Rstudio | Python | Microsoft Office: proficient user of Word, Excel and Powerpoint | NIS-Elements

DRIVING LICENCE

Cars: B

ORGANISATIONAL SKILLS

Organisational skills

-good organizational skills developed as a member of the club Eco-Silvic Suceava 2018

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

-good communication skills developed during the level 1 psycho-pedagogical module

-Participation in the presentation of Dr. Zydrunas Preiska, professor at the Faculty of Forestry and Ecology at the Aleksandras Stulginskis University in Kaunas on the Lithuania Natura 2000 Network within the Erasmus + program (31.10.2017).

-Participation in the presentation of Biodiversity and Forest Management supported by Prof. Dr. Emeritus Ernst-Detlef Schulze from the Max Planck Institute for Biogeochemistry (3.11. 2016).

OTHER SKILLS

Other skills

Professional skills:

- study visit to BioEnergy Suceva (2018)
- volunteer at the Environmental Protection Agency Suceava (2018-2019)
- trainee at the wastewater treatment plant ACET Suceava (2018-2019)
- study visit to Egger Rădăuți (2019)
- internship to Egger Radauți (2019)

Awards:

-Special prize at contest Academician Cristofor Simionescu, Iași 23.11.2013

-Special prize at olympics in the disciplines in the curriculum area Technologies , county stage, 22 februarie - 1 martie 2014

-Second prize at olympics in the disciplines in the curriculum area Technologies , county stage, 21-27 februarie 2015

Voluntary work:

- voluntary action "Let's do it România" 2012
- voluntary action "Let's do it România" 2013
- volunteer "Pădurea de mâine" (Dorna Candrenilor , 2018)
- volunteer "Pădurea de mâine" (Comuna Arbore , 2019)