

## PROGRAMME

18.11.2025 (Tuesday)

|                                                      |                                                       |                                                                                                                                     |
|------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 09:00 - 09:10                                        | Start of the Workshop for Young Researchers – Welcome |                                                                                                                                     |
| INVITED LECTURE                                      |                                                       |                                                                                                                                     |
| 09:10 - 09:40                                        | Prof. Dr. Anna Matuszyńska                            | From Sharks to Bacteria: Computational Modeling of Photosynthesis                                                                   |
| PRESENTATIONS BY DOCTORAL STUDENTS (with discussion) |                                                       |                                                                                                                                     |
| 09:40 - 10:00                                        | Biedrzycka Adrianna                                   | FTIR spectroscopy in the identification of functional groups in lignocellulosic biomass                                             |
| 10:00 - 10:20                                        | Paoletta Giulia                                       | Role of Natural Organic Matter in the Environmental Persistence of Bisphenol A                                                      |
| 10:20 - 10:40                                        | Bielak Karolina                                       | From one drop to the successive falling drops                                                                                       |
| 10:40 - 11:00                                        | Sainul Abidh Kalappurackal Muhammadaly                | Impact of post-harvest maturity on molecular and conformational properties of native pectin fractions from apple pomace             |
| 11:00 - 11:20                                        | Sama Desmond Kwayela                                  | Agricultural waste-derived biochars and their modification in the context of the removal of silver nanoparticles from aqueous media |
| 11:20 - 11:40                                        | Coffee break                                          |                                                                                                                                     |
| 11:40 - 12:00                                        | Puzhakkara Veettil Abitha                             | Rheological Investigation and Printability Analysis of Low-Methoxyl Pectin-Based Bio-Ink for 3D Printed Constructs                  |
| 12:00 - 12:20                                        | Barańska Daria                                        | Distribution and Colonization of Bacillus megaterium B107/23 in Microgreens - First Insights                                        |
| 12:20 - 12:40                                        | Kozyra Maciej                                         | A new OpenFOAM solver implementing film flow mechanism for accurate unsaturated hydraulic conductivity calculations                 |
| 12:40 - 13:00                                        | Zawadzka Klaudia                                      | Optimization of the cultivation conditions of antagonistic organisms used in the biopreparation against bull's eye rot in apples    |
| 13:00 - 14:00                                        | Lunch                                                 |                                                                                                                                     |

19.11.2025 (Wednesday)

| INVITED LECTURE                                                                                                |       |                                 |
|----------------------------------------------------------------------------------------------------------------|-------|---------------------------------|
| 09:00                                                                                                          | 09:30 | dr hab. inż.<br>Walkiewicz Anna |
| Multidimensional benefits of agroforestry in the face of climate change                                        |       |                                 |
| PRESENTATIONS BY DOCTORAL STUDENTS (with discussion)                                                           |       |                                 |
| 09:30                                                                                                          | 09:50 | Rafalska Adrianna               |
| Effect of combined climate change factors on soil CH <sub>4</sub> uptake in grasslands                         |       |                                 |
| 09:50                                                                                                          | 10:10 | Sisodia Priyal                  |
| The seasonal resilience of soil microbial communities and functional profiles is strengthened by intercropping |       |                                 |
| 10:10                                                                                                          | 10:30 | Szymańska Marlena               |
| The influence of bacterial exopolymers on the biochemical composition of microalgae cells                      |       |                                 |
| 10:30                                                                                                          | 10:50 | Furtak Adam                     |
| The impact of the green herbicide – nonanoic acid on methanotrophic bacteria                                   |       |                                 |
| 10:50                                                                                                          | 11:10 | Coffee break                    |
| 11:10                                                                                                          | 11:30 | Gryta Angelika                  |
| Effect of biochar from digestate on the wettability of Abruptic Luvisol soil                                   |       |                                 |
| 11:30                                                                                                          | 11:50 | Kukowska Sylwia                 |
| Immobilization of metals and metalloids in soil modified with activated carbon and polymers                    |       |                                 |
| 11:50                                                                                                          | 12:10 | Marciniak Magdalena             |
| An effect of the onion cell wall polysaccharides and plant nutrients on the germination of vegetable seeds     |       |                                 |
| 12:10                                                                                                          | 12:30 | Okoń Karolina                   |
| PsbS protein and Zeaxanthin in Non-Photochemical Quenching Regulation under Fluctuating Light and Drought      |       |                                 |
| 12:30                                                                                                          | 13:30 | Lunch                           |

Please prepare presentations of approximately 15 minutes to allow time for a brief discussion after each talk.