**INTERNSHIP POSITION**

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| **Topic**  | PLLA bio-composites development (filler preparation, physical and chemical modification, processing) |
| **Specification/****Programme**(min. 100 words) | The project is focused on the development of PLLA bio-composites with all components made from renewable materials. After modification of the individual components, samples will be produced on a laboratory extruder MC 15 HT (Xplore, Netherlands). Subsequently, the mechanical, thermal (Differential Scanning Calorimetry, Thermogravimetric Analysis), rheological properties, and chemical changes (Fourier Transform Infrared Spectroscopy) of PLLA bio-composites will be evaluated. Furthermore, the distribution of additives will be evaluated using Scanning Electron Microscopy (SEM). The project results will be summarized in the final report and presentation.  |
| **Time period** | November 2024 to December 2024 |
| **Length of the traineeship - number of months** | 1 month |
| **Supervisor´s name and contact**  | Pavel BrdlíkTechnical University of LiberecFaculty of Mechanical EngineeringDepartment of Engineering TechnologyStudentská 1402/246117 Liberecpavel.brdlík@tul.cz |
| **Administrative Contact** | Marcela Valkova, marcela.valkova@tul.cz  |
| **Documents required** | CV, Letter of motivation, Transcript of Records |