**INTERNSHIP POSITION**

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| **Topic**  | **Surface modification of materials** |
| **Specification/****Programme**(min. 100 words) | The course aims to educate students on different approaches to material characterization and techniques utilized in surface treatments. The primary focus will be on plasma surface treatment technologies, such as PVD deposition of thin layers through physical vaporization and magnetron sputtering, as well as other surface treatment methods. Students will learn how to assess modified surfaces through various evaluation methodologies, including surface roughness, thickness of applied layers, chemical composition, hardness, tribological properties, microscopic analysis using confocal and digital microscopy, and assessment of antibacterial activity. Lastly, students will gain exposure to appropriate methods for evaluating data, such as image processing or signal analysis, and become familiar with processing data using statistical methods in relevant software to obtain reliable results. |
| **Time period** |  |
| **Length of the traineeship - number of months** | 2 x 1 month |
| **Supervisor´s name and contact**  | Ing. Totka Bakalova, Ph.D.Ing. Lucie Svobodová, Ph.D.Technical University of LiberecFaculty of Mechanical EngineeringDepartment of Material ScienceStudentská 1402/246117 Liberectotka.bakalova@tul.czlucie.svobodova@tul.cz |
| **Administrative Contact** | Marcela Valkova, marcela.valkova@tul.cz  |
| **Documents required** | CV, Letter of motivation, Transcript of Records |