

URAL FEDERAL UNIVERSITY

(RUSSIA, EKATERINBURG)

Dates: 18 June 2019 - 28 July 2019

#	Direction	Name of the Project	Supervisor (name, academic position/degree, link on CV)	Number of places (minimum-maximum)	Pre-Requisites	Partner Companies/Industries
1	Human Resources Management	Talent Management in Innovational HRM	Lysenko Elena Vladimirovna, Ass. Prof. /Candidate of Science (Philisophy)	from 10	Human Resources Management, Management and Administration, Organizational Psychology, Development of Human Capital, Marketing in the area of HRM, Business and Management Consulting, Staff Audit	RusAgro (Food Production), Association of Managers and specialists in the HRM (Professional Societies), ПИТЗ (Первоуральск, Mining Production), СКБ-Контур (IT-Technologies), Yandex (IT-Technologies)
2	Power engineering	Artificial Intelligence in Power engineering	Khalyasmaa Alexandra associate professor, PhD; Stanislav Eroshenko assistant professor, PhD	from 8 to 20	Basic software engineering (programming); Computer modelling of technical systems; Higher mathematics; Energy production, transmission, consumption.	Scientific and Technical Center of Unified Power System (JSC «STC UPS»), LLC «ProSoft – Systems», OAO IDGC of Urals, ABB.
3	Robotics	Balancing robot like SEGWAY	Pelevin Vladimir associate professor, Head of the Training Laboratory	from 5 to 15	Basic software engineering (programming); basic course of mathematics and physics	
	Robotics: programming of microcontrollers (LEGO Midstorms, Arduino, AVR)	1. Two way labyrinth with the shortest path calculation. 2. Trajectory with the elements of artificial intelligence for the automatic adjustment of the regulator's PID control coefficients 3. Creation of a manipulator to solve the problem of the Hanoi Tower.	Melnikov Vladislav - PhD student	from 5 to 15	Basic software engineering (programming); basic course of mathematics and physics	Hackerspace "РобоКод" Robotics Club "РобоКод"

4	Mechanical Engineering	Design of Equipment for Automation of Processing Lines	Fedulov Artem, Associate Professor, Candidate of Technical Sciences	from 5 to 10	Engineering Mechanics, Strength of Materials, Computer-aided Design, Theory of Machines and Mechanisms, Machine Parts, Information Technologies	JSC PNTZ, JSC ChTPZ, Association of Machinebuilders in Sverdlovsk Region
5	Mechanical Engineering	Design of Bridge Crane Trolley for Specified Manufacturing Environment	Lukashuk Olga, Associate Professor, Candidate of Technical Sciences; Letnev Konstantin, Senior Lecturer	from 5 to 10	Engineering Mechanics, Strength of Materials, Computer-aided Design, Theory of Machines and Mechanisms, Machine Parts, Information Technologies	Uralmash
6	Mechanical Engineering	Design of Car Repair Shop	Lyakhov Sergey, Associate Professor, Candidate of Technical Sciences	from 5 to 10	Engineering Mechanics, Strength of Materials, Computer-aided Design, Theory of Machines and Mechanisms, Machine Parts, Information Technologies	Ural Locomotives
7	Mechanical Engineering	Design of Automated System for Utilization (Compression Briquetting) of Municipal Solid Waste	Gamberg Alexey, Associate Professor, Candidate of Economic Sciences	from 5 to 10	Engineering Mechanics, Strength of Materials, Computer-aided Design, Theory of Machines and Mechanisms, Machine Parts, Feasibility Study	Ural Locomotives
8	Civil Engineering	Design of cast-in-place reinforced structures of multi-storey building	Redikultsev Evgeniy, Senior Lecturer; Karlova Ekaterina, Senior Lecturer; Belyanina Ksenya, Senior Lecturer	from 5 to 10 (2-3 students in one group)	Structural analysis Basic knowledge of Architecture or Civil Engineering	Teplit, AtomStroyKomplex etc.
9	Civil Engineering	Design of precast reinforced structures of multi-storey building	Redikultsev Evgeniy, Senior Lecturer; Karlova Ekaterina, Senior Lecturer	from 5 to 10 (2-3 students in one group)	Structural analysis Basic knowledge of Architecture or Civil Engineering	Teplit, AtomStroyKomplex etc.
10	Civil Engineering	Design of main bearing steel structures of multi-storey building	Kudryavtsev Sergey, Associate Professor; Belyaeva Zoya, Associate Professor; Karlova Ekaterina, Senior Lecturer	from 5 to 10 (2-3 students in one group)	Structural analysis Basic knowledge of Architecture or Civil Engineering	Teplit, AtomStroyKomplex etc.
11	Civil Engineering	Design of main bearing steel structures of single-storey industrial building	Kudryavtsev Sergey, Associate Professor; Belyaeva Zoya, Associate Professor; Karlova Ekaterina, Senior Lecturer	from 5 to 10 (2-3 students in one group)	Structural analysis Basic knowledge of Architecture or Civil Engineering	Teplit, AtomStroyKomplex etc.

12	Civil Engineering	Design of main bearing steel structures of long-span building	Kudryavtsev Sergey, Associate Professor; Belyaeva Zoya, Associate Professor; Karlova Ekaterina, Senior Lecturer	from 5 to 10 (2-3 students in one group)	Structural analysis Basic knowledge of Architecture or Civil Engineering	Teplit, AtomStroyKomplex etc.
13	Water Treatment	Preparation of drinking water from surface and underground water sources	Migalatiy Evgeniy, professor; Naschetnikova Olga, Associate Professor; George Brayalovsky, Associate Professor	from 5 to 10 (2-3 students in one group)	Basic knowledge of water supply and sanitation in cities; hydraulics, pumping stations, water chemistry	Thermal power station Akademicheskaya / Vodokanal, Western filter station Vodokanal, Northern Water Treatment Plant Vodokanal
14	Water Treatment	Purification and reuse of industrial wastewater / Industrial wastewater treatment and reuse	Tsarev Nikolay, Associate Professor; George Brayalovsky, Associate Professor; Naschetnikova Olga, Associate Professor; Migalatiy Eugene, professor	from 5 to 10 (2-3 students in one group)	Basic knowledge of water supply and sanitation in cities; hydraulics, pumping stations, water chemistry	Thermal power station Akademicheskaya / Vodokanal, Western filter station Vodokanal, Northern Water Treatment Plant Vodokanal
15	Water Treatment	Cooling water treatment /	Tsarev Nikolay, Associate Professor; George Brayalovsky, Associate Professor; Naschetnikova Olga, associate professor	from 5 to 10 (2-3 students in one group)	Basic knowledge of water supply and sanitation in cities; hydraulics, pumping stations, water chemistry	Thermal power station Akademicheskaya / Vodokanal, Western filter station Vodokanal, Northern Water Treatment Plant Vodokanal
16	Robotics	Flexible manufacturing cells	Ogorodnikova Olga, Full Professor, Dr.Hab.Eng.	4 students	Industrial robots, programming, flexible manufacturing cells	ABB Robotics