

## I. Personal and study details

Student's name: **Šlehofer Kristián**

Personal ID number: **483516**

Faculty / Institute: **Faculty of Electrical Engineering**

Department / Institute: **Department of Control Engineering**

Study program: **Cybernetics and Robotics**

## II. Bachelor's thesis details

Bachelor's thesis title in English:

**Development of RC car controlled by STM32 microcontrollers**

Bachelor's thesis title in Czech:

**Vývoj RC auta řízeného pomocí STM32 mikrokontroler**

Guidelines:

- 1) Learn about STM32 microcontrollers, describe their structure and main peripherals.
- 2) Build the RC car from the functional blocks and explain how they work.
- 3) Develop the software necessary to control the RC car.
- 4) Test the behaviour of the designed system in real conditions.

Bibliography / sources:

- [1] J. Yiu, 'Definitive Guide to ARM (R) Cortex (R)-M3 and Cortex (R)-M4 Processors,' Elsevier Books, 864 p, 2013, ISBN: 0124080820
- [2] T. Martin, 'The Insider's Guide To The STM32 ARM Based Microcontroller,' Hitex Ltd., 106 p, 2009, ISBN: 0-9549988 8
- [3] STMicroelectronics, 'STM32F303xB/C/D/E, STM32F303x6/8, STM32F328x8, STM32F358xC, STM32F398xE advanced ARM®-based MCUs,' RM0316 Reference manual [on-line]
- [4] Nordic Semiconductor, 'nRF24L01+ Single Chip 2.4GHz Transceiver,' Product specification [on-line]

Name and workplace of bachelor's thesis supervisor:

**Ing. Jan Stejskal Department of Electric Drives and Traction FEE**

Name and workplace of second bachelor's thesis supervisor or consultant:

Date of bachelor's thesis assignment: **07.02.2022** Deadline for bachelor thesis submission: **20.05.2022**

Assignment valid until: **30.09.2023**

Ing. Jan Stejskal  
Supervisor's signature

prof. Ing. Michael Šebek, DrSc.  
Head of department's signature

prof. Mgr. Petr Páta, Ph.D.  
Dean's signature

## III. Assignment receipt

The student acknowledges that the bachelor's thesis is an individual work. The student must produce his thesis without the assistance of others, with the exception of provided consultations. Within the bachelor's thesis, the author must state the names of consultants and include a list of references.

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Date of assignment receipt

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Student's signature