<u>Internship Approval Form (for undergraduate students)</u>

Next steps for your Internship Approval:

After completing your **Internship Submission Online** and your **Internship Approval Form** save it as a **PDF** (name it: IA_YEAR_YOUR_NAME_ORGANIZATIONNAME.pdf) and send it **to csc@jacobs-university.de**
DEADLINE: APRIL 30th.

Personal Information of the student

Family name:	Chowdhury
First name:	Priontu
Email:	p.chowdhury@jacobs-university.de
Class:	2023
Major study program:	Electrical and Computer Engineering
Academic advisor:	Dr. Juergen Fritz

Internship Information

Starting date:	01.06.2022
Ending date:	31.08.2022
Company / Institution:	Bosch Engineering GmbH
Industry / Field of business	Motorsport/Automotive
Address:	Robert Bosch Allee 1, 74232, Abstatt, Germany
Postal code / City	74232
Country:	Germany
Department:	Motorsport
Supervisor's name (family name, first name):	Joerg Eesmann
Supervisor's email:	Joerg.Eesmann@de.bosch.com

Internship Content

Description of the internship host institution (products, company size, competitive environment etc.)	Bosch is the leading automotive supplier in the world with a size of roughly 402,000 employees. It is also very active in the market for home appliances. Bosch has a very large portfolio of products. Some products provided by Bosch Motorsport are Engine Control Units, Displays, Collision Avoidance Systems, Data Loggers, Injection Power Stages, CAN Keypad, Power Boxes, Sensor Interfaces, Telemetry System, Diesel System Components, Fuel Pumps and many more. A full portfolio for Bosch Motorsport can be found here: https://www.bosch-motorsport.com/content/downloads/Raceparts/en-GB/index.html
Expected regular tasks: and project tasks (What kind of jobs will you be assigned?)	Regular tasks include working with the Analysis Tool Windarab. I work specifically with electronic devices used in Formula 1 cars with combustible engines. The devices in these cars communicate with each other as part of their regular function, presented to the user as system log data. In the event that something breaks, it becomes important to analyze the system log data and figure out exactly what happened. However, that becomes difficult since by the time the system breaks there is usually hundred thousands or millions of lines logged by the devices. In order to counteract this, I am building a syslog analysis tool that can take in all the data, extract the important information, and give the engineer the required information.
How is the internship related to your major study program? Why are you particularly interested to do this internship?	As an ECE major I received very good understanding of how electronic devices work. I also received deep knowledge of communications systems and how they function in real time. This helped me figure out the internal mechanics of the devices very quick. I was able to very easily decipher the hierarchical structure of the devices at play in F1 cars. It is very important to know the functions of the power-box, the control unit, sensors, and the applications that manage these devices in order to build an efficient Syslog Analysis tool. Furthermore, I can attribute part of my success in this internship to the diverse background provided by my major. Other than analog and digital electronics, communications and signal processing, I also obtained a background in programming in C, C++, Python and VHDL, FPGA Programming, and advanced mathematics like Fourier Analysis, Numerical Methods and Machine Learning. As a result, I was able to meet any requirements for the job very quick and cope with the challenges of the work very fast. I like this internship because I find that it challenges me on all fronts and tests my abilities to their limits. It has helped me develop my analytical and critical thinking abilities, and I find the work very rewarding. There are very few internships where an intern is the progenitor of a whole software system project, and that kind of experience is very important in order to move forward and become successful in a career. I also

	believe I have more freedom than the regular intern, and the work culture at Bosch Motorsport is amazing. I have also always wanted a job where I am able to use most or all of my knowledge base, and I believe this internship comes close in that regard. Lastly, working with F1 Technology has been one of my oldest dreams in life, right next to the first one of becoming an astronaut – which makes working at Bosch Motorsport a huge milestone in my life.

Date: ___10.08.2022___   Student's Signature:_____

I approve that the internship position stated above is related to the major.

Date: _____   Academic Advisor's Signature:_____