# Goal and use of this document

The proposal is used to describe a practical research internship which is carried out in semester 5 of the study program. Through this form the student requests approval for the assignmentfrom the internship coordinator. This document is also used to receive feedback from client and coordinator and should lead to all three parties having one single view of the assignment. The student is responsible for writing the content, based on input of the organization and feedback of the coordinator. This document may be written in Dutch.

# Student details

Student number : 4252802

First name + Family name : Mohammed Alshukaili

Location : Eindhoven

Profile Semester 3 : M

Specialisation Semester 4 : ICS

Internship choice : ICS

Dutch-speaking? : No

# Internship period

Start date : 6-2-2023 (official start date: Monday FHICT-week 1)

End date : 23-6-2023 (official end date: Friday FHICT-week 18)

# Organisation details

Name : Eindhoven University of Technology (TU/E)

Visiting address : https://goo.gl/maps/ENKJ9ocrwNvDmXwD7

Zipcode + City + Country : 5612 AZ, Eindhoven, The Netherlands

Phone : 0402472381

Website : https://security1.win.tue.nl

Own Company (“Eigen bedrijf”)? : No

***Company mentor***

(The person who guides the student on a regular basis)

First name + Family name : Luca Allodi

Department : Security Group - Faculty of Mathematics and Computer Science

Position : Assistant Professor

Background (highest education) : Ph.D., Computer Science, Security in University of Trento

Background URL (e.g. LinkedIn) : https://www.linkedin.com/in/lallodi/

Phone : +31 (0)40 2474971

Email : l.allodi@tue.nl

Assignment in ASAM? : No

# Context & Problem/Opportunity

### 1.1 Context & Background

The ESH-SOC at TU/e is a SOC monitoring IT security events run by the Eindhoven University of Technology. The ESH-SOC is a new project starting on the 30th of June 2020, to which several commercial partners are affiliated. These commercial partners enrich the service portfolio provided by the ESH-SOC, as well as providing professional expertise contributing to running its monitoring operations. These commercial partners are all operating in the Eindhoven region and provide consultancy, IT management, and cloud services to their clients. The ESH-SOC operates in the highly technological sector of security monitoring, at the intersection between network security, data analysis by means of machine and deep learning techniques, and operational aspects such as incident detection, and reporting and communication to the customers.

### 1.2 Current situation & Stakeholders

*The current situation regarding the activities, problems (or opportunity) is described. The relevant stakeholders within the organization are provide with an explanation why they (possibly) are stakeholders. The scope of the project must become clear at this point.*

### 1.3 Problem/opportunity description

The student working on this project can evaluate security problems in a real, operational environment and to engage in the feedback loop between SOC operations and SOC development by participating in the fine-tuning and refinement of (technological/process) aspects of its operation. The student will get experience with state-of-the-art security monitoring technologies in the larger context of security operations and contribute to their development by critically matching customer requirements with technological implementations and limitations

# Assignment

### 2.1 Desired project result

*Below it should be clear what the desired result of the internship is. What situation should be reached at the end of the internship?*

***Project goal***

*A clear and as concrete as possible description of the intended results and what value they should have for the organization. A (concept) project goal can be formulated and products to be delivered are indicated.*

***Project IT-deliverable***

*Specifically indicate the IT-products (proof-of-concept) that will be developed. Describe the end product as well as any intermediate products or other deliverables that are already known. For each IT-deliverable, specify the technology(s) to be used.*

### 2.2 Research aspects

***Research questions***

*As it is important that all results are based upon (also practical) research: Which research questions are going to be relevant in order to achieve the desired project result? Provide (sub)-research questions and possibly a main research question.*

***Research approach***

*Regarding the DOT Framework: give a first indication of which research strategies and methods will be used and/or will be the most important ones. Think of the possibilities your internship environment specifically has or lacks and how you can in any case ensure you have enough methods and strategies to use.*

# Guidance & Expertise

***Coach/Mentor***

*What background does your company mentor have? Think of education (Bachelor/Master/Phd) as well as experience in (internship) coaching or mentoring. How many hours of guidance will there be per week and will you be coached?*

***Expertise / Guidance***

*What expertise is available in the company and who has that expertise? What kind of support does the company provide on IT skills related to your domain? Describe the people and/or teams or departments where you are able to go to and who will help and guide you with (IT)-domain related questions, advice and review.*

# Personal & Professional goals

Which aspects on personal or professional development will you further develop? Focus on soft-skills. Select a realistic three to five aspects to work on. Use previous feedback received from others (e.g. semester coaches and teachers as input).

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| Personal goal | Describe what exactly you want to achieve and how to work on this. |
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# (Optional) other important remarks