

# EH2760 MANAGEMENT OF PROJECTS

ESS-CAR/ESS-NW

STOCKHOLM, SWEDEN

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## Project Plan

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JONAS EKMAN  
YINI GAO  
JACOB KIMBLAD

LEON FERNANDEZ  
FREDRIK HYYRYNEN  
YIFAN RUAN

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## Background

Advanced Driver Assistance Systems (ADAS) is one of the hottest research areas in the automotive industry. ADAS should be capable of sensing the vehicle's surroundings, as well as vehicle's own status. To achieve those abilities, multiple sensors and Embedded Control Units (ECUs) are used in the ADAS and a network inside the vehicle is established to combine the data gathered from different nodes.

The two projects "ESS-Car Embedded Services for a Self-Adaptive Car" and "ESS-Network Embedded services for Self-Adaptive Networking" were provided by professor De-Jiu Chen at KTH Royal Institute of Technology. The idea of our projects are from Viktor Karlquist's Master's thesis [1]. He presented a design and implementation of an automotive experimental platform for ADAS, and the "ESS-Car" team from last year's MF2063 course round has already built a autonomous vehicle prototype based on the thesis[2]. Our projects will be focused on the development and extension of the prototype. Instead of traditional IP networks, software defined networking which centralizes the control plane in

## Reference Documents

- EH2760 course-pm [3]
- ESS-CAR and ESS-NW entries in the MF2063 project catalog [4]

- 1 Goals
- 2 Organization
- 3 Project Model
- 4 Commentary: Time Plan
- 5 Commentary: Resource Plan
- 6 Risk Analysis
- 7 Communication
- 8 Documentation

## References

- [1] Karlquist, “Design and implementation of an automotive experimental platform for ADAS,” KTH, Skolan för informations- och kommunikationsteknik (ICT), 2017.
- [2] Bark *et al.*, “Embedded service for self-adaptive cars,” KTH, Institutionen för Maskinkonstruktion, 2017. [Online]. Available: <https://kth.box.com/s/iaabvkok3fsqgpbgaq10ymgqnnf3a135>
- [3] Lilliesköld, Gingnell, Petterson, and Varawala, “Management of projects eh2760,” KTH, Management of Technology Research Group, 2018.
- [4] Chen and Derbyshire, “The embedded systems HK 2018 project descriptions,” KTH, Institutionen för Maskinkonstruktion, 2018.

- A Time Plan
- B Resource Plan
- C Work Breakdown Structure