

Lane Detection for a situation adaptive lane keeping support system, the SAFELANE system



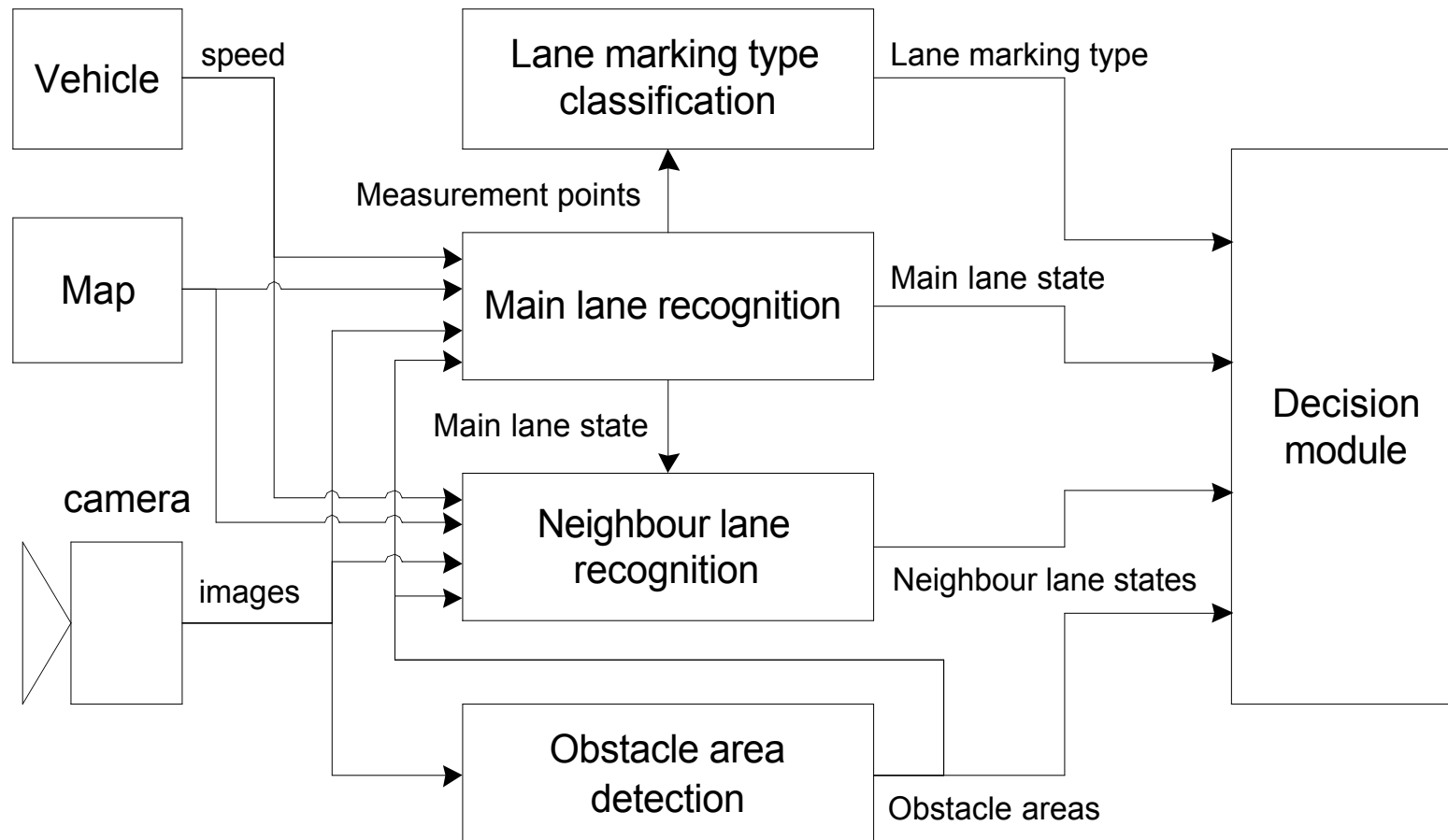
Introduction



- SAFELANE: Situation-adaptive system for enhanced lane keeping support
- Main Sensor: Vision based lane detection
- Modular approach (interfaces, platform)
- Development driven
 - by evaluation results of existing state of the art lane tracker systems
 - by functional requirements



System Components



System Features



- High dynamic range CMOS camera
- Clothoid as lane model
- Clear separation of camera calibration and vehicle position estimation
- Usage of digital map data to adapt config. parameters (lane width and curvature range)
- Hough transformation for lane detect initialisation
- Dynamic local adaption of several thresholds



Demos

