

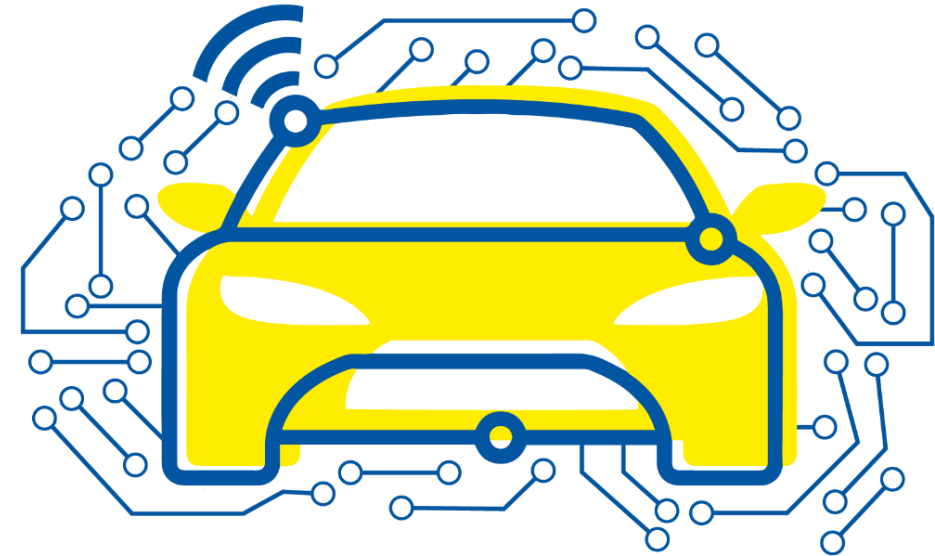
Automated and Connected Driving Challenges

Section 2 – Sensor Data Processing

Semantic Image Segmentation Tasks

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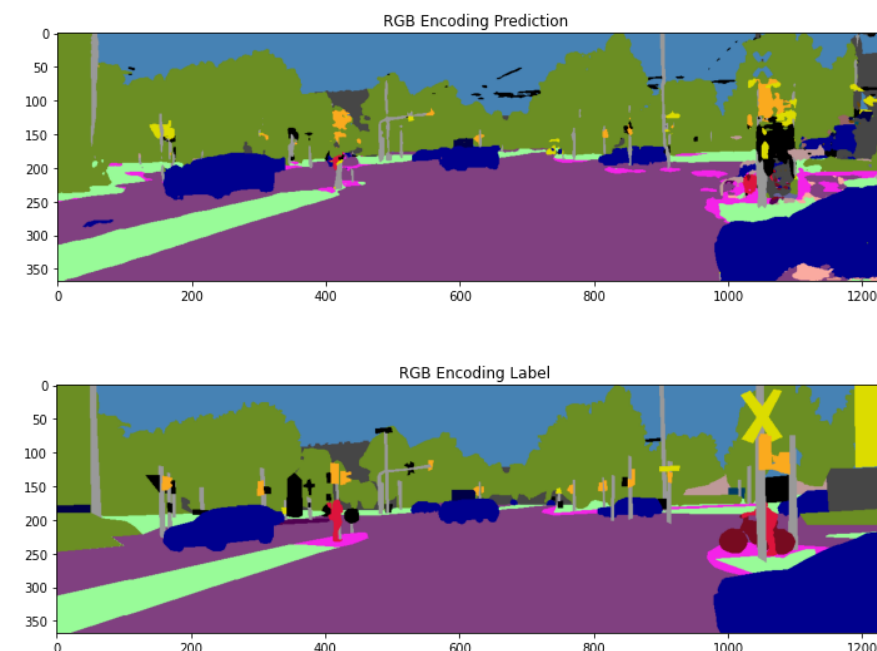
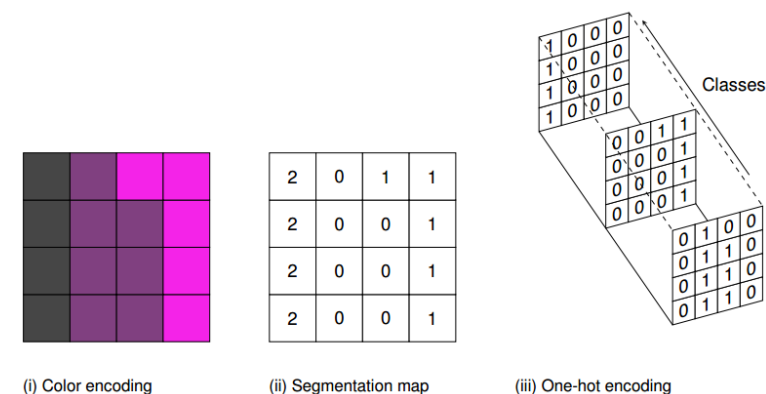




Semantic Image Segmentation – Tasks

Semantic Image Segmentation

- **Assignment:**
“Semantic Image Segmentation”
 - Jupyter Notebook (Python)
 - Load dataset for semantic image segmentation
 - Convert between different label encodings
 - Create a TensorFlow input pipeline
 - Construct the deep learning model
 - Train a model and perform inference with it
- **Assignment:**
“Including Semantic Image Segmentation in ROS”
 - Node (Python)
 - Using perform inference using real camera data
 - Visualize the model output with ROS





Semantic Image Segmentation – Tasks

Semantic Image Segmentation

- **Assignment:**
“Boosting Semantic Image Segmentation”:
 - Jupyter Notebook (Python)
 - Implement simple augmentation methods
 - Implement an augmentation policy method
 - Integrate augmentation policy into training pipeline
 - Compare model trained with augmentation and without augmentation

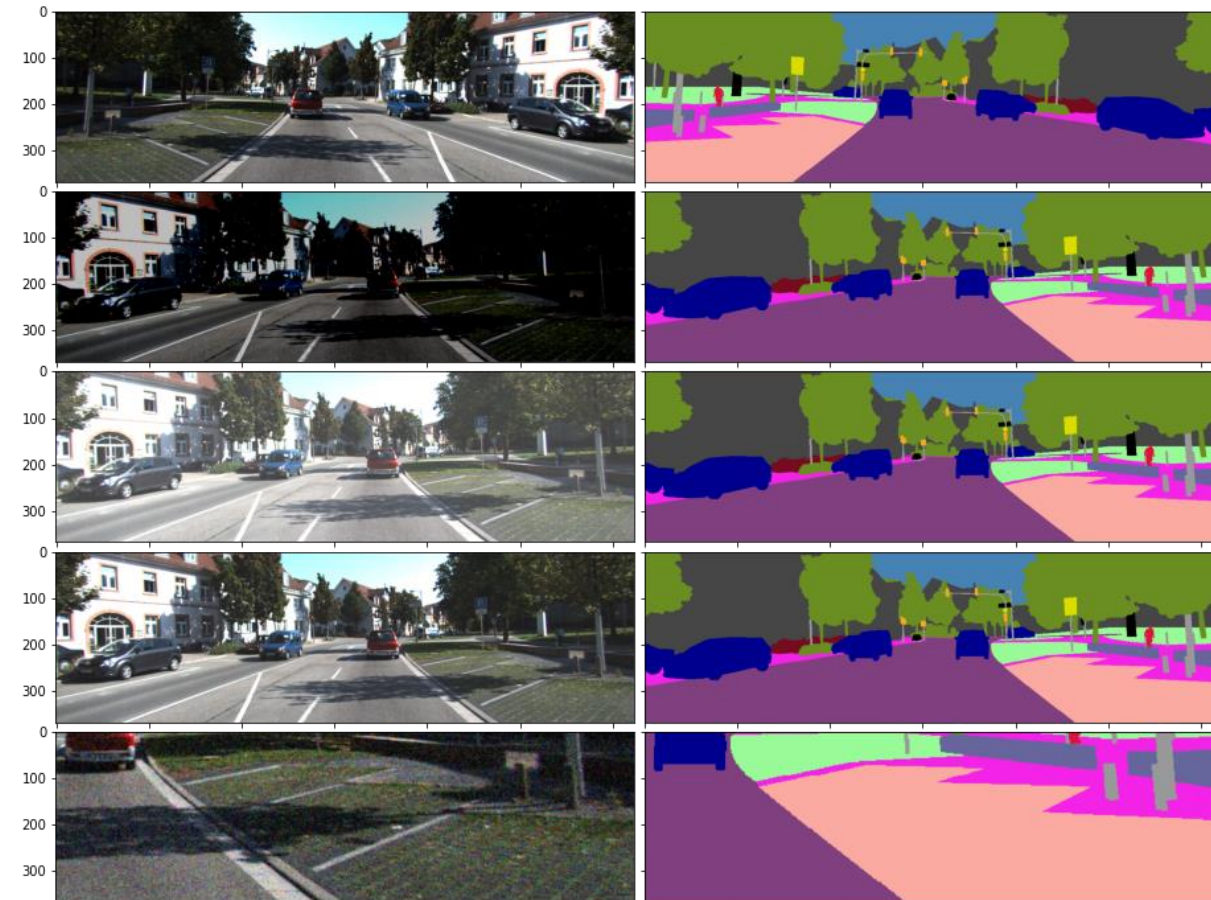


Image: ika