

Session 1: Architectures and Frameworks for Autonomous Systems

1.1- DeepRacing: A framework for Agile Autonomy 1027

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1.2-Fail-Operational Automotive Software Design Using Agent-Based Graceful Degradation 1028

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1.3-A Distributed Safety Mechanism using Middleware and Hypervisors for Autonomous Vehicles 1029

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Session 2: Uncertainty Handling in Safe Autonomous Systems

2.1- Making the Relationship between Uncertainty Estimation and Safety Less Uncertain 1030

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2.2- System Theoretic View on Uncertainties 1031

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2.3- Detection of False Negative and False Positive Samples in Semantic Segmentation 1032

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Session 3: Autonomous Cyber-Physical Systems: Modeling and Verification

3.1- Trustworthy Autonomy: Behavior Prediction and Validation

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3.2- On Infusing Logical Reasoning into Robot Learning

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3.3- Formally-Specifiable Agent Behavior Models for Autonomous Vehicle Test Generation

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Session 4: Emerging Approaches to Autonomous Systems Design

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4.2- Towards Safety Verification of Direct Perception Neural Networks 1037

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4.3- Minimizing Execution Duration in the Presence of Learning-Enabled Components 1044

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