Traffic Analysis From Video

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We propose a complex and **fully automated** system for **traffic analysis**. It is possible to count vehicles, classify them, detect lanes and **accurately measure speed** of vehicles and it requires **no manual calibration**.

**Proposed Solution**

- Fully automatic camera calibration
- Runs in real time
- Published in top journal and conference
- 3D bounding boxes are constructed
- Enable to measure dimensions of vehicles
- Scale is calibrated by statistics of dimensions
- Accurately detects lanes
- Estimate direction of vehicles
- Generate overall statistics
- Final system monitoring a road
- Red numbers denote speed of vehicles
- Deployed for real traffic surveillance

**Results**

- Detect and track vehicles – accuracy: **0.915**
- Precise speed measurement – mean error: **4.5%**
- Classification of vehicles with accuracy: **96.1%**
- Precise lanes detection
- Fully automated – no manual input required
- Runs in real time – **70 FPS**

**Publications Based on This Work**


**3rd best paper award winner of EEICT**