



# We drive innovation to help the world evolve

FEV.io addresses the increasing requirements, needs and the pace of development in the field of intelligent mobility. Through our deep understanding of software and electronics in combination with detailed know-how in all vehicle areas that are essential for the development of intelligent mobility solutions, we offer our customers first-class engineering services.

The portfolio of FEV.io covers seven domains: Systems Engineering, Functional Safety & Cyber Security, Connected Mobility, ADAS/AD, Infotainment, SW & EE Platforms, SW & EE Integration.

We strive for a world in which safe and sustainable mobility systems improve people's lives. To achieve this, we support our visionary customers and partners worldwide. Together, we help connect and mobilize all people.

[www.fev.io](http://www.fev.io)

## Regional offices India

**Technical center**  
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**Smart mobility center**  
Survey 2, Hissa No 7/1, Baner  
Pune Maharashtra 411045

**Software center**  
9<sup>th</sup> floor  
IIT Madras Research Park  
Kanagam road, Taramani  
Chennai, 600113

**Vehicle development center**  
H Block, Plot no, C-181  
MIDC, Chinchwad,  
Pune Maharashtra 411019

**Software center**  
350 Ramprika Tower  
Himmat Nagar, Tonk Road  
Jaipur, Rajasthan 302018

**Project office**  
1117, Logix office tower  
Sector-32  
Noida, Uttar Pradesh 201301



## Headquarter FEV Europe

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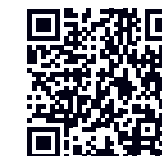
# Digitalizing mobility – connecting people



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# We provide cutting edge solutions

## System engineering

- › Model based systems engineering
- › Entire vehicle systems engineering (EPT, ADAS, e-cockpit, body, chassis and connectivity)
- › Vehicle and system level requirements generation including FUSA, CYSEC, DIAG and other system requirements
- › Use-case, activity and logical function architecture development

## ADAS

- › Automated & assisted driving solutions in automotive (PV/CV), offroad, rail and marine transport
- › Perception and vehicle control system development & validation
- › System engineering & system validation (SYS.1 to SYS.5)
- › Digital twin and virtual validation of automated driving
- › Software design and development (SWE.1, SWE.2, SWE.3)
- › Software testing (SWE.4, SWE.5, SWE.6)

## E-cockpit & connected mobility

- › Infotainment, Cluster and HUD System Engineering & feature development
- › Multi-model HMI development
- › Automotive Android platform and Apps development
- › Middleware and platform development
- › Connectivity, Voice, Media, Tuner, Projection and other features solutions
- › Board bring-up and Board Support Package BSP customizations.
- › HIL System Validation and automation solutions
- › End-to-End connectivity solutions (In vehicle, Backend, Cloud & Mobile Apps)
- › Telematics-Box development & configuration
- › 5G, V2X Connectivity (Connectivity solutions based 5G C-V2X)

## Functional safety & cybersecurity

- › Functional safety Assessment at Vehicle and Component level
- › HARA, Concept, Functional Safety Requirements, FMEA, FTA
- › Technical Safety Concept and technical safety requirements derivation up to ASIL D.
- › Software Safety Requirements, Architecture, implementation and tool qualification & evaluation, unit & integration testing upto ASIL C
- › Fault Injection test plan, test cases and test execution at vehicle and LabCAR level.
- › Safety case preparation at vehicle and component level
- › UNECE R155 Process Definition, Rollout & Execution & Homologation
- › Threat Analysis and Risk Assessment, Concepts & Req Mgmt
- › Penetration Testing (Vehicle, Cloud & Mobile Apps)
- › Vulnerability monitoring & Incidence Management
- › Key Management Infrastructure design & development
- › Cybersecurity Implementation (AUTOSAR, QNX, Linux & SDV)

## SW & EE development & integration

- › Vehicle EEA development using Vector PREEvision
- › EE Architecture incl. network design & development (Ethernet, CAN, Lin)
- › EEA development for SDV (Central & Zonal EEA)
- › EEA Integration Services & Vehicle Integration Validation
- › AUTOSAR architecture design & development
- › Basic software specification & configuration
  - › SYS, OS, COM, DIAG, MEM, IO, CRPTO, MCAL, CDD, RTE
- › Application software (ASW) design, development & validation
- › Non-AUTOSAR to AUTOSAR migration consultancy
- › RTE Generation

## Software defined vehicle

- › SOA (Adaptive or Other Platforms) based application development & Validation
- › Legacy ECU to SOA consultancy, implementation & Validation
- › SOME/IP DDS and Signal to Service Gateway Development
- › System Integration services (VM, HPC, ZONAL & VEHICLE) levels
- › SDV Platform development
- › Board bring up, hypervisor porting
- › Systems Partitioning
- › FEV Vehicle Catalog & Virtual BUS (SDV Middleware) (IP) Development

## Data science & engineering analytics

### FEV's reusable assets

- › ALiVA – automatic data annotation and labelling framework
- › Battery on cloud and Analytics applications as a service
- › Prognostics & asset health analytics framework
- › Vehicle data analytics platform
- › Moving vehicle mass estimation

### Automotive Digital Twin Solutions

- › EV motor & Battery Digital Twin
- › Conventional powertrain components
- › EV power electronics components digital twin
- › Vehicle Digital Twin for virtual validation



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