EV Optimization - Increase Travel Range for Fixed Battery

- Presentations showcased at CES 2023:
- Weekly Meeting
- Copy of COVESA SOC Based Estimation_v8.xlsx
- Attendees
- Attendees
- Overview
- COVESA Community Calendar
- EV Charging Expert Group Mailing List (Google Group)
- Slack Channel
- EV Charging Expert Group Channel:

This project is scheduled to be closed by end of 2023. For more information on this project, please refer to the below resources:

Whitepaper:

2023 Whitepape...ion 202310.pdf

COVESA EV Powe...r 2023_v01.pdf

GitHub Repository: https://github.com/COVESA/ev_power_optimization

OTA and Web Socket for Data Transfer Links:
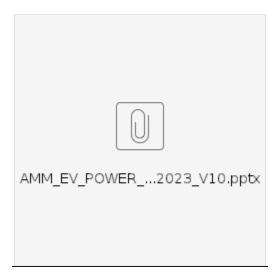https://opentoolforge.com/public/

https://opentoolforge.com/public/socket

Digital.Auto Simulation Platform Link: https://digitalauto.netlify.app/model/3i4cyXdvQU2u595RnOIy/library/prototype/wuZFKLZyG0ThyaNu2CxM/view/run

AMM October 2023:

Covesa Oct AMM Flyer_v2.pdf

Final Presentation to be showcased at AMM October 2023:

AMM_EV_POWER_...2023_V10.pptx

Link for Video on AMM October 2023 Demo:

Covesa event Demo video .mp4

AMM April 2023:

Updated_Covesa ...M Flyer 001.pdf

Presentation showcased at AMM April 2023:

AMM_EVPowerOpt...023_1 (1).pptx

Link for Video on AMM April 2023 Demo:

https://drive.google.com/file/d/1av6d0hXLDXsobmJ9NZXu9VyoQ0y9rlWn/view

Presentations showcased at CES 2023:

CES_EVPowerOptimization.pdf

Weekly Meeting

Wednesdays at 7:00am PT, 10:00am ET, 1600 CET

Meeting Link:

- https://us06web.zoom.us/j/84048457170?pwd%3DUEFSNGxoQ0FPTjErbWJRSE1NMURSUT09
- Also can be accessed from COVESA Community Calendar

Copy of COVESA SOC Based Estimation_v8.xlsx

2023-11-08 Meeting Notes

- Attendees
    - Henkel Achim - Bosch
    - @ Chris Cheng - Steinbeis
    - Pradeep Kumar - Mobis
    - Umang Sharma - Mobis
- Discussion on flawless integration of HVAC and Infotainment System use cases for Power Optimization.
- Presentation of the existing architecture of the project.
- Discussion on proposed integrated architecture of the project.

2023-11-01 Meeting Notes

- Attendees
    - Paul Boyes - COVESA
    - Umang Sharma - Mobis
    - Anirudh K - Mobis
    - cc @Jaegervall Eric - Bosch
- Discussion on plan for the Project post AMM
- Discussion on schedule of CES 2024

2023-10-04 Meeting Notes

- Attendees
    - @ Chris Cheng - Steinbeis
    - Umang Sharma - Mobis
    - Anirudh K - Mobis
    - @ Gopinath P - Ansys
    - cc @Jaegervall Eric - Bosch
- Discussion on HVAC Use Case integration with Digital.Auto Platform.
- Updates on integration of all use cases.

2023-09-27 Meeting Notes

- Attendees
    - Paul Boyes - COVESA
    - Henkel Achim - Bosch
    - @ Chris Cheng - Steinbeis
    - Umang Sharma - Mobis
    - Anirudh K - Mobis
    - Ted Guild - Geotab
    - cc @Jaegervall Eric - Bosch

- Planning and discussion on Preparations for the AMM in October 2023.
- Discussion on finalization of use cases for the AMM.

2023-09-20 Meeting Notes

- Attendees
    - @ Chris Cheng - Steinbeis
    - @ Gopinath P - Ansys
    - Pradeep Kumar - Mobis
    - Umang Sharma - Mobis
    - Anirudh K - Mobis
    - Ted Guild - Geotab
    - cc @Jaegervall Eric - Bosch
- Updates on the developments in the Web Socket Architecture for the Digital Auto Platform.
- Discussion on the integration of other use cases with Digital Twin for AMM.
- Planning for the development of Collateral and Presentations for the AMM in October 2023.

2023-09-13 Meeting Notes

- Attendees
    - @ Chris Cheng - Steinbeis
    - @ Gopinath P - Ansys
    - Pradeep Kumar - Mobis
    - Umang Sharma - Mobis
    - Anirudh K - Mobis
    - cc @Jaegervall Eric - Bosch
- Discussion on updates in the Web Socket and Digital Auto Connection with the Server-based use case.
- Updates on the development of Digital Twin for AMM.
- Updates on transportation of Physical hardware for HVAC use case for the AMM.

2023-09-06 Meeting Notes

- Attendees
    - Paul Boyes - COVESA
    - @ Chris Cheng - Steinbeis
    - @ Gopinath P - Ansys
    - Pradeep Kumar - Mobis
    - Umang Sharma - Mobis
    - Anirudh K - Mobis
    - cc @Jaegervall Eric - Bosch
- Discussion on updates in the Server-based architecture use case.
- Discussion on the different use cases that will be presented during AMM 2023.
- Discussion on integration of HVAC Use Case Physical hardware with the other use cases.

2023-08-23 Meeting Notes

- Attendees
    - Paul Boyes - COVESA
    - Unknown User (dirk.slama@bosch.com) - Bosch
    - @ Chris Cheng - Steinbeis
    - Umang Sharma - Mobis
    - Anirudh K - Mobis
    - @ Gopinath P - Ansys
    - @ Hemesh Patil - Ansys
    - cc @Jaegervall Eric - Bosch
- Presentation on the work done on the ANSYS HVAC Use Case Digital Twin Model.
- Planning on the various use cases to be presented during the upcoming AMM.

2023-08-16 Meeting Notes

- Attendees
    - Paul Boyes - COVESA
    - Pradeep Kumar - Mobis
    - @ Satish Kumar Utti - Mobis
    - Umang Sharma - Mobis
    - Unknown User (dirk.slama@bosch.com) - Bosch
    - @ Chris Cheng - Steinbeis
    - @ Hemesh Patil - Ansys
    - cc @Jaegervall Eric - Bosch
- Presentation on the foundational architecture of DreamKit solution showcasing:
    - HVAC demonstration
    - Seat simulation
    - Integration with the IVI system
- Exploration on the architecture of Digital Auto v1.0 and its interconnection with diverse IVI models and the DreamKit ANSYS Model via HPC utilizing VSS Signal.
- Discussion on the roadmap for version 2.0 of Digital Auto.
- Discussion regarding the architecture of the upcoming AMM demo and outlined tasks for the forthcoming week.
- Updates on API integration for IVI systems with Azure Cloud.

2023-08-09 Meeting Notes

- Attendees
    - [Pradeep Kumar](#) - Mobis
    - [Chandra Chitikela](#) - Mobis
    - [Umang Sharma](#) - Mobis
    - [Anirudh K](#) - Mobis
    - [Unknown User (dirk.slama@bosch.com)](#) - Bosch
    - @ Chris Cheng - Steinbeis
    - @ Gopinath P - Ansys
    - @ Hemesh Patil - Ansys
    - cc @Jaegervall Eric - Bosch
- Discussion on the updates in the development of HVAC use case.
- Brainstorming to come up with a high level architecture for the Use Case presentation during AMM in October 2023.
- Planning the collaboration from various stakeholders to develop specific use cases for the next AMM.
- Discussion on logistics for the next AMM.

2023-08-02 Meeting Notes

- Attendees
    - [Pradeep Kumar](#) - Mobis
    - [Chandra Chitikela](#) - Mobis
    - @ Satish Kumar Utti - Mobis
    - [Umang Sharma](#) - Mobis
    - [Anirudh K](#) - Mobis
    - @ Chris Cheng - Steinbeis
    - @ Richard Fernandes - General Motors
    - cc @Jaegervall Eric - Bosch
- Discussion on the updates on Digital.Auto in relation to the Server-based architecture.
- Planning for the next AMM in October 2023.
- Discussion on involvement of various stakeholders to develop the use cases for the next AMM.

2023-07-26 Meeting Notes

- Attendees
    - [Paul Boyes](#) - COVESA
    - [Pradeep Kumar](#) - Mobis
    - [Umang Sharma](#) - Mobis
    - [Anirudh K](#) - Mobis
    - [Henkel Achim](#) - Bosch
    - @ Gopinath P - Ansys
    - @ Hemesh Patil - Ansys
    - @ Richard Fernandes - General Motors
    - cc @Jaegervall Eric - Bosch
- Discussion on the updates in Server-based architecture approach.
- Discussion on the approach to be taken for the next AMM in October 2023.
- Discussion on the work being done by Ansys on Digital Twin use cases.

2023-07-19 Meeting Notes

- Attendees
    - [Pradeep Kumar](#) - Mobis
    - [Umang Sharma](#) - Mobis
    - [Anirudh K](#) - Mobis
    - @ Chris Cheng - Steinbeis
    - @ Gopinath P - Ansys
    - @ Hemesh Patil - Ansys
    - @ Richard Fernandes - General Motors
    - cc @Jaegervall Eric - Bosch
- Discussion on the development of Websocket for Server-based architecture.
- Presentation on updates in Digital.auto simulations with a discussion on further changes.
- Discussion on the approach taken by Ansys for further development of Digital Twin use cases.

2023-07-12 Meeting Notes

- Attendees
    - [Chandra Chitikela](#) - Mobis
    - [Umang Sharma](#) - Mobis
    - [Anirudh K](#) - Mobis
    - @ Hemesh Patil - Ansys
    - @ Richard Fernandes - General Motors
    - cc @Jaegervall Eric - Bosch
- Discussion on current updates and revised architecture for the data flow between the EV and the Digital Auto server.
- Discuss on Ansys Digital Twin use cases including HVAC use case.

2023-07-05 Meeting Notes

- Attendees
    - @ Chris Cheng - Steinbeis
    - [Pradeep Kumar](#) - Mobis
    - [Umang Sharma](#) - Mobis

- ◦ cc @Jaegervall Eric - Bosch
- Conversation about optimizing EV power and the API for digital auto communication.
- Presentation on the revised architecture for the data flow between the EV and the Digital Auto server.
- Demonstration on the EV power optimization digital auto demo.

2023-06-28 Meeting Notes

- Attendees
  - ◦ Henkel Achim - Bosch
  - ◦ @ Chris Cheng - Steinbeis
  - ◦ Pradeep Kumar - Mobis
  - ◦ Chandra Chitikela - Mobis
  - ◦ @ Gaurav Mittal - Mobis
  - ◦ Umang Sharma - Mobis
  - ◦ Anirudh K - Mobis
  - ◦ cc @Jaegervall Eric - Bosch
- Discussion on integrating Server based Architecture for IVI Use Case with the Digital.Auto Platform
- Feedback and suggestions received on changes to be made in Server based Architecture for IVI Use Case

2023-06-21 Meeting Notes

- Attendees
  - ◦ Paul Boyes - COVESA
  - ◦ Henkel Achim - Bosch
  - ◦ @ Chris Cheng - Steinbeis
  - ◦ Pradeep Kumar - Mobis
  - ◦ Chandra Chitikela - Mobis
  - ◦ @ Gaurav Mittal - Mobis
  - ◦ Umang Sharma - Mobis
  - ◦ Anirudh K - Mobis
  - ◦ cc @Jaegervall Eric - Bosch
- Discussion on updates in Server based Architecture for IVI Use Case
- Discussion on next steps to collaborate with other open source organizations such as SOAFEE
- Discussion on steps to be taken to include more partner companies including OEMs in the Project

2023-06-14 Meeting Notes

- Attendees
  - ◦ Unknown User (dirk.slama@bosch.com) - Bosch
  - ◦ Pradeep Kumar - Mobis
  - ◦ Chandra Chitikela - Mobis
  - ◦ @ Satish Kumar Utti - Mobis
  - ◦ Umang Sharma - Mobis
  - ◦ Anirudh K - Mobis
  - ◦ cc @Jaegervall Eric - Bosch
- Discussion on Server based Architecture for IVI Use Case
- Feedback from team regarding possible changes to the Server based Architecture
- Discussion on updates and next steps with respect to collaboration with Bosch regarding HVAC Use Case

2023-05-31 Meeting Notes

- Attendees
  - ◦ Unknown User (dirk.slama@bosch.com) - Bosch
  - ◦ Henkel Achim - Bosch
  - ◦ Umang Sharma - Mobis
  - ◦ Anirudh K - Mobis
  - ◦ cc @Jaegervall Eric - Bosch
- Discussion on GitHub Branch configuration and modifications that can be made
- Discussion on possible collaboration with Simulink
- Updates from Bosch regarding HVAC Use Case

2023-05-17 Meeting Notes

- Attendees
  - ◦ Paul Boyes - COVESA
  - ◦ Henkel Achim - Bosch
  - ◦ @ Chris Cheng - Steinbeis
  - ◦ Chandra Chitikela - Mobis
  - ◦ Anirudh K - Mobis
  - ◦ cc @Jaegervall Eric - Bosch
- Discussion on IVI Application developed for AMM
- Discussion on steps to be taken to include more partner companies in the Project
- Digital. Playground updates on simulation models discussed

2023-05-10 Meeting Notes

- Attendees
  - ◦ Paul Boyes - COVESA
  - ◦ Henkel Achim - Bosch
  - ◦ @ Chris Cheng - Steinbeis

- - Pradeep Kumar - Mobis
    - Chandra Chitikela - Mobis
    - @ Gaurav Mittal - Mobis
    - Umang Sharma - Mobis
    - Anirudh K - Mobis
    - cc @Jaegervall Eric - Bosch
- Updates shared on the new GitHub repository created for EV Power Optimization Project. Link to the repository: https://github.com/COVESA/ev_power_optimization
- Discussion on plans for follow up meetings with contacts met during the AMM
- Digital.Playground updates to the user interface discussed
- Discussion on development of HVAC use case going forward

2023-05-03 Meeting Notes

- Attendees
    - Paul Boyes - COVESA
    - Pradeep Kumar - Mobis
    - @ Gaurav Mittal - Mobis
    - Umang Sharma - Mobis
    - Anirudh K - Mobis
    - cc @Jaegervall Eric - Bosch
- Discussion on creation of a separate Repository for the EV Power Optimization Project on GitHub. PFB details of some VSS signals developed till date for this project which are posted on GitHub:

S.No.	Title	Description	Github Link	Review	Developer	Signal Definition
.	Last Touch by User to Infotainment	In phone as we see, phone goes to sleep mode if not touch for long time, same use case can be use to save infotainment battery by using last touch VSS Signal, that can help OEMS. So, the signal proposed gives information regarding last touch in power optimization's branch.	https://github.com/COVESA/vehicle_signal_specification/pull/585	Erik Jaegervall (erikbosch)	Umang Sharma (UmangSharmaMobis)	HMI.LastActionTime: datatype: string type: sensor description: Time for last hmi action, formatted according to ISO 8601 with UTC time zone.
2.	Display Timer off for Infotainment	In phone as we see, phone goes to sleep mode if not touch for some desire time, same use case can be use to save infotainment battery by defining desire time. So, the signal proposed gives information regarding desire time by which infotainment might goes to display sleep mode.	https://github.com/COVESA/vehicle_signal_specification/pull/585	Erik Jaegervall (erikbosch)	Umang Sharma (UmangSharmaMobis)	HMI.DisplayOffDuration: datatype: uint16 type: actuator unit: s description: Duration in seconds before the display is turned off. Value shall be 0 if screen never shall turn off. comment: Display shall be turned off at HMI.LastActionTime + HMI.DisplayOffDuration, unless HMI.IsScreenAlwaysOn==True.
3.	IsScreenAlwaysOn	IsScreenAlwaysOn signal can be set by applications to prevent the screen from going black	https://github.com/COVESA/vehicle_signal_specification/pull/585	Erik Jaegervall (erikbosch)	Umang Sharma (UmangSharmaMobis)	HMI.IsScreenAlwaysOn: datatype: boolean type: actuator description: Used to prevent the screen going black if no action placed.

- Discussion on mail to be sent to all AMM attendees with the Power Optimization project flyer
- It was agreed that updates from the AMM will be discussed during next week's meeting

2023-04-19 Meeting Notes

- Attendees
    - Paul Boyes - COVESA
    - Unknown User (dirk.slama@bosch.com) - Bosch
    - Henkel Achim - Bosch
    - @ Chris Cheng - Steinbeis
    - Pradeep Kumar - Mobis
    - Chandra Chitikela - Mobis
    - @ Gaurav Mittal - Mobis
    - Umang Sharma - Mobis
    - Anirudh K - Mobis
    - cc @Jaegervall Eric - Bosch

- Presentation of final results from Digital Twin Simulation
- Discussion regarding marketing and booth preparations for AMM
- Discussion regarding Integration of Digital Twin simulation results with Digital Auto Platform

- Discussion on presentation and other documents to be prepared for AMM

- 2023-04-12 Meeting Notes
  - Attendees
    - Paul Boyes - COVESA
    - Henkel Achim - Bosch
    - @ Chris Cheng - Steinbeis
    - Pradeep Kumar - Mobis
    - Umang Sharma - Mobis
    - Anirudh K - Mobis
    - cc @Jaegervall Eric - Bosch

- Displaying updates on Infotainment use case demo
- Presentation of Digital Twin simulation results from collaboration with Ansys
- Discussion on integrating Digital Twin simulation results on Digital Auto Platform
- Updates on the new VSS Signal developed for Infotainment Display were discussed

- 2023-04-05 Meeting Notes
  - Attendees
    - Paul Boyes - COVESA
    - Henkel Achim - Bosch
    - @ Chris Cheng - Steinbeis
    - Pradeep Kumar - Mobis
    - Chandra Chitikela - Mobis
    - Umang Sharma - Mobis
    - Anirudh K - Mobis
    - cc @Jaegervall Eric - Bosch
  - Discussion on Poster and other marketing collateral being prepared for AMM
  - Discussion on Project Status presentation that will be presented at AMM
  - Integration of Digital Twin Models on Digital.Auto Platform was discussed

    - Integration is scheduled to be completed before the AMM
  - The new VSS Signal developed for Infotainment Display was showcased
    - Feedback was given to change it to match global standards

- 2023-03-29 Meeting Notes
  - Attendees
    - Paul Boyes - COVESA
    - Unknown User (dirk.slama@bosch.com) - Bosch
    - Henkel Achim - Bosch
    - Pradeep Kumar - Mobis
    - Chandra Chitikela - Mobis
    - @ Gaurav Mittal - Mobis
    - @Praveen P - Mobis
    - Umang Sharma - Mobis
    - Anirudh K - Mobis
    - cc @Jaegervall Eric - Bosch
    - 2023-03-29 Meeting Notes
  - Presentation of updates in Infotainment Application Development use case
  - Details related to work done in collaboration with Ansys were shared and progress in the development of Digital Twin models was showcased
  - Branding and space related preparations for AMM 2023 meeting were discussed
  - Discussion on Collaboration with Bosch in relation to HVAC use case
  - The Integration of use case data on Digital Auto Platform was discussed

- 2023-03-22 Meeting Notes
  - Attendees
    - Unknown User (dirk.slama@bosch.com) - Bosch
    - Henkel Achim - Bosch
    - @ Chris Cheng - Steinbeis
    - @Praveen P - Mobis
    - Umang Sharma - Mobis
    - Anirudh K - Mobis
    - cc @Jaegervall Eric - Bosch
  - Work done on Infotainment use case presented, feedback given by the project team on how this use case can be integrated with VSS
  - Key updates shared from meetings with Ansys regarding Digital Twin models
  - It was discussed that a document titled Status Report of EV Power Optimization project will be prepared with the combined effort of the project team

- This document can be showcased at AMM 2023
- The document can contain details of work done so far and future plans for this project

- 2023-03-08 Meeting Notes
  - Attendees
    - @ Chris Cheng - Steinbeis
    - Pradeep Kumar - Mobis
    - @ Syed Basha -Mobis
    - @ M Phani Teja - Mobis
    - Umang Sharma - Mobis
    - Anirudh K - Mobis
    - cc @Jaegervall Eric - Bosch
  - Discussion on Infotainment Demo planned to be showcased during AMM 2023
    - Planned System Architecture and Use Cases
    - Planned approaches to showcase the use cases during AMM 2023
  - The implementation of EV Power Optimization use cases on Digital Playground Platform for AMM was discussed
  - Details of key points from recent meeting with Bosch regarding HVAC Use Case were shared

- 2023-03-01 Meeting Notes
  - Attendees
    - Paul Boyes - COVESA
    - Unknown User (dirk.slama@bosch.com) - Bosch
    - Henkel Achim - Bosch
    - @ Chris Cheng - Steinbeis
    - Pradeep Kumar - Mobis
    - Chandra Chitikela - Mobis
    - Anirudh K - Mobis
    - cc @Jaegervall Eric - Bosch
  - Discussion on ongoing collaboration between with Ansys on Digital Twin Model Development for HVAC Use Case
  - Discussion on upcoming meeting with Bosch regarding possible collaboration to develop HVAC Use Case
  - It was discussed that the IVI and HVAC use cases will be presented during the AMM
  - The planned Agenda Schedule for EV Power Optimization Project during AMM 23 was discussed with the below key points
  - Room will be available at the AMM Venue for showcasing Demos
  - Any Special Requirements for presenting Demos need to be mentioned in advance to COVESA

- 2023-02-22 Meeting Notes

  - Attendees:
  - Unknown User (dirk.slama@bosch.com) - Bosch
  - @ Chris Cheng - Steinbeis
  - Pradeep Kumar - Mobis
  - Chandra Chitikela - Mobis
  - @ Gaurav Mittal- Mobis
  - @ M Phani Teja - Mobis
  - Umang Sharma - Mobis
  - Anirudh K - Mobis
  - cc @Jaegervall Eric - Bosch
  - ADAS Use case for Smart Cruise Control demonstrated with the below key points:
    - ADAS Smart Cruise Control can help in EV Power Optimization by assisting OEMs to recommend drivers to activate the cruise control feature for the right vehicle speed that can lead to achieving Extended Range while driving with a critical SOC
    - For this use case, two VSS Signal approaches were proposed:
      - Signal under Existing ADAS module
      - Signal under new Power Optimize module
    - Results from this use case to be extrapolated to show the results as percentage battery savings
  - Discussion on engagement and follow up meetings with Bosch Germany and Ansys regarding HVAC use case
  - Discussion on engagement and follow up meetings with EPAM regarding Infotainment use case

- Meeting between Ansys and Power Optimization Project Team:

  - Ansys team showcased their services related to the following:
    - Overall Analysis services portfolio
    - Digital Twin related services portfolio
    - Presentation on how Digital Twin can be used to simulate a HVAC System on an E
  - It was agreed that before the next AMM (scheduled from April 25th to 27th), Ansys will work with the Power Optimization Project team to generate the following data as part of Phase 1 of the collaboration:
    - Time Series Data on Google Sheets related to HVAC Power Optimization of Battery state of charge development
    - Input related to improving already existing end-to-end time series data (simple Battery state of charge development in dependency to HVAC) as google sheet
    - Re-use existing Digital Simulation models for EV batteries
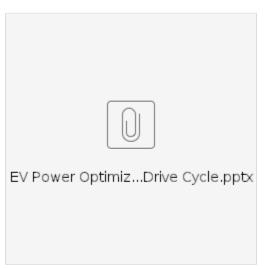
- 2023-02-01 Meeting Notes
  - Attendees

- Paul Boyes - COVESA
- Henkel Achim - Bosch
- Pradeep Kumar - Mobis
- Chandra Chitikela - Mobis
- @ Gaurav Mittal- Mobis
- @ M Phani Teja - Mobis
- Umang Sharma - Mobis
- Anirudh K - Mobis
- cc @Jaegervall Eric - Bosch
    - It was agreed that the Pull Request introduced on VSS for 7 Power Optimization Signals at module level on the VSS Tree can be merged into the overall code and tree structure during the next VSS meeting
    - It was discussed that as more use cases for Power Optimization get developed and new signals are accepted, Power Optimization can be a separate branch on VSS Tree
    - ADAS use case and signal on Smart Cruise Control explained with the below possible benefits
        - It can enable Range extension on cruise control
        - It can activate Regenerative Braking that will push some power back to the vehicle and thus give additional power optimization
    - It was suggested that this signal can be introduced as an actuator value under an existing module as the functionality of the ADAS Smart Cruise Control might be similar to existing Powertrain Optimization modes in the market. The signal will be updated and discussed again during next week's meeting
- 2023-01-25 Meeting Notes
    - Attendees
        - Paul Boyes - COVESA
        - Pradeep Kumar - Mobis
        - Umang Sharma - Mobis
        - @M Phani Teja - Mobis
        - @Anirudh - Mobis
        - cc @Jaegervall Eric - Bosch
    - Summary of the new EV Power Optimization signals introduced during yesterday's VSS Meeting. The new Power Optimization signals defined on VSS through a pull request are as follows:

S.No.	Signal	Purpose
1	#Vehicle.PowerOptimizeLevel	Power Optimization of full Vehicle
2	#Vehicle.Powertrain.PowerOptimizeLevel	Power Optimization of Powertrain
3	#Vehicle.Body.PowerOptimizeLevel	Power Optimization of Vehicle Body
4	#Vehicle.Cabin.PowerOptimizeLevel	Power Optimization of Cabin
5	#Vehicle.Cabin.HVAC.PowerOptimizeLevel	Power Optimization of HVAC
6	#Vehicle.Cabin.Infotainment.PowerOptimizeLevel	Power Optimization of Infotainment System
7	#Vehicle.ADAS.PowerOptimizeLevel	Power Optimization of ADAS System

    - Brief introduction was given on the new ADAS Power Optimization Signal proposed:
        - The signal proposed is related to ADAS Cruise Control
        - The signal will allow for speed setting to be changed during Optimized Cruise Control
    - The ADAS signal will be further defined and shared with the group before the next weekly meeting
    - Based on the discussion in the next meeting, the new signal can be presented during the following week's VSS meeting
    - Details of next AMM shared, it is scheduled to be held in Porto, Portugal from April 25th to 27th, 2023

- 2023-01-18 Meeting Notes
    - Attendees
        - Chandra Chitikela
        - Umang Sharma
        - Pradeep Kumar
        - Henkel Achim
        - @Gaurav (MOBIS)
        - @Anirudh (MOBIS)
        - cc Paul Boyes
        - cc @Jaegervall Eric
    - Next Steps:
        - Pull request for **PowerOptimizationLevel** might be extended by a seventh value on vehicle.PowerOptimizationLevel 1..10
        - Bosch will push the extended Pull request to the data expert group V: Achim with Eric
        - Drop the HMI-brightness Pull-request V: MOBIS Umang
        - Link to Google Android Automotive vHAL: automotive/vehicle/2.0/types.hal - platform/hardware/interfaces - Git at Google (googlesource.com)

- 2023-01-11 Meeting Notes
    - Attendees
        - Chandra Chitikela
        - Chris Cheng - Steinbeis
        - Unknown User (dirk.slama@bosch.com) -Bosch

- John Moon
- Pradeep Kumar
- Sarat Chandra - Mobis
- Ted Guild - Geotab
- Umang Sharma - Mobis
- Discussed CES - the thought is it went well
- Seeking an HVAC Expert to determine what signals are needed
- Introductions of new attendees Ted Guild and John Moon
- Chandra presented background for Ted and John
- Unknown User (dirk.slama@bosch.com) to look into HVAC Demo system + integration
- Asked for spot to present at next AMM
- Discussed when next AMM

- 2022-12-21 Meeting Notes:
  - ## Attendees
    - Paul Boyes - COVESA
    - Pradeep Kumar - Mobis
    - Chandra Chitikela - Mobis
    - Henkel Achim - Bosch
    - Chris Cheng - Steinbeis
    - Anirudh K - Mobis
    - Umang Sharma - Mobis
  - Demo of Playground.AI Visualizations was showcased. Discussion on the types of additional data points that can be added to the Playground.
  - Specific Topics to be included in the CES presentations were discussed along with a discussion on the overall flow of the presentations.
  - Discussion on updates made to the Datasheet, the updated Data will be shared among the team for further iterations.
  - Discussion on submission of 1 pull request on VSS and regarding the development of a detailed VSS Architecture for this project.
  - It was agreed to have another call next week to finalize the data and presentations for CES.

- 2022-12-14 Meeting Notes:
  - ## Attendees
    - Paul Boyes - COVESA
    - Pradeep Kumar - Mobis
    - Chandra Chitikela - Mobis
    - Henkel Achim - Bosch
    - Guarav Mittal - Mobis
    - Chris Cheng - Steinbeis
    - Anirudh K - Mobis
    - Umang Sharma - Mobis
  - Discussion Points
    - Based on the discussion on the call, Pull request for VSS Signals developed will be submitted
    - Mobis recommended Branch level degradation status in the VSS status but this requires discussion in the VSS Meeting
    - For the CES Dataset samples, Bosch suggested to include Powertrain Data and Status. Mobis will work on making these changes in the Dataset
    - Steinbeis will share the updated Digital.Auto Visualization based on the updated data sheet

EV Power Optimiz...Drive Cycle.pptx

VSS_Power_exten..._options_V1.pdf

- [2022-12-07 Meeting notes](#)
- [EV Power Optimization: Process and Development Guide](#)
- [Meeting Notes Prior to 2022-12-07](#)

EV Power Optimization Project Proposal:
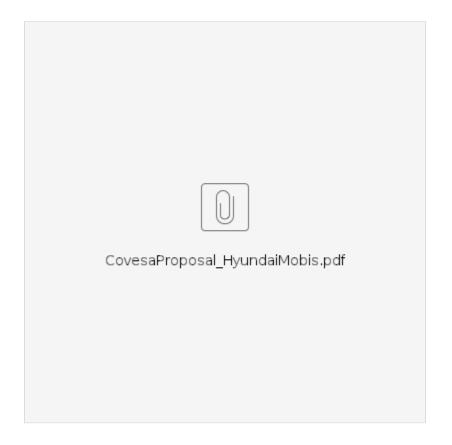
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Overview

Framing Question: How can we increase the travel range in EV for fixed battery capacity?

EV Power Optimization Project Proposal Summary

- The proposal team aims to initiate and lead a dedicated EV power optimization Interest group within COVESA.
- An initial seeding project aims at :
    - Develop standard specification for power optimization.
    - Demonstrate features/scenarios by POC.
- The proposal team would like to drive this project if other OEMS participate in defining/improving the guidelines for multiple ECU's.

CovesaProposal_HyundaiMobis.pdf

COVESA Community Calendar

The COVESA Community Calendar contains all open COVESA meetings. We suggest you subscribe to this calendar to stay up to date.

EV Charging Expert Group Mailing List (Google Group)

https://groups.google.com/u/0/a/covesa.global/g/ev-charging-expert-group

Slack Channel

COVESA Community Workspace Invite:

https://join.slack.com/t/covesacommunity/shared_invite/zt-1eul7g8g0-Kj9p~Guk4Khv3rlPUy5flw

EV Charging Expert Group Channel:

https://covesacommunity.slack.com/archives/C03U5LCEXDK