Relevant Papers related to AGL+Cloud+connectivity:

Keywords used: AGL, automotive grade linux, Linux foundation, connected car, open source platforms, AGL Connectivity, Infotainment connectivity, connected vehicles, wireless connectivity, vehicle communication, Internet of Vehicles.

The relevant papers were found by using googlescholar site. We searched the site using the keywords related to cloud, connectivity, OTA and streaming. The papers found in the first 4 pages of the search result were read thoroughly and papers related to AGL were identified.

https://ieeexplore.ieee.org/document/9112556 - This paper is about using AGL SW architecture for IVI.

https://ieeexplore.ieee.org/document/8746156 - This paper is about implementation of the proposed driver identification system within the AGL framework.

https://ieeexplore.ieee.org/abstract/document/8987693 - This paper is about how message exchange takes place in AGL (binding)

https://ieeexplore.ieee.org/document/8628558 - This paper is about adaptive AUTOSAR and AGL for connected cars.

Master thesis paper on IVI:
https://odr.chalmers.se/bitstream/20.500.12380/218477/1/218477.pdf - This paper talks about 3 open source platforms which are used and contains a case study on GENIVI platform.
https://www.ripublication.com/ijaer17/ijaerv12n12_40.pdf - This paper talks about MobileSecond Platform and the vehicle control framework, which is the key element of Connected Car, are developed as native applications and Web applications.

https://link.springer.com/content/pdf/10.1007/s11042-015-3158-4.pdf - This paper is about InCloud which is a cloud based middleware for vehicular infotainment application development

https://ieeexplore.ieee.org/document/8715535 - This paper talks about the emerging technologies regarding connectivity. Provides overview on in-vehicle and between-vehicles-&-others (vehicle-to-everything-V2X) and possible next-generation evolution paths. The paper discusses about options suitable for designing technical solutions to fulfil enhanced V2X (eV2X) requirements

https://ieeexplore.ieee.org/document/7047294 - This paper introduces connected vehicles.

https://ieeexplore.ieee.org/document/6823640 - This paper talks about the challenges and review the state-of-the-art wireless solutions for vehicle-to-sensor, vehicle-to-vehicle, vehicle-to-Internet, and vehicle-to-road infrastructure connectivity.

https://ieeexplore.ieee.org/document/7389040 - This paper talks about surveys on different in-vehicle communication bus protocols towards emerging technologies (IoT).

https://books.google.se/books?hl=en&lr=&id=QzemDwAAQBAJ&oi=fnd&pg=PA274&dq=automotive+grade+linux&ots=FVrditvMBZ&sig=bZAs3gS3HLn543cd9XxJNfhra3M&redir_esc=y#v=onepage&q=automotive%20grade%20linux&f=false - This paper is about eclipse kuksa which is used for cloud services and OTA

https://www.orioninc.com/articles/agl-session-replay-from-all-member-summer-2020-meeting/

https://books.google.se/books?hl=en&lr=&id=QzemDwAAQBAJ&oi=fnd&pg=PA274&dq=automotive+grade+linux&ots=FVrditvMBZ&sig=bZAs3gS3HLn543cd9XxJNfhra3M&redir_esc=y#v=onepage&q=automotive%20grade%20linux&f=false - This paper is about eclipse kuksa which is used for cloud services and OTA

Papers which were discarded:

The below papers were searched through snowballing (forward and backward).

https://ieeexplore.ieee.org/document/9179288 - This paper talks about the yocto project which is used by AGL.

https://ieeexplore.ieee.org/abstract/document/6320530/ - This paper is found through snowballing. It is rejected because it talks about creation of benchmark framework to evaluate the performance of JavaScript in comparison to native code

https://ieeexplore.ieee.org/document/4608401 - This paper is found through snowballing. It is rejected because it is about implementation of vehicular management systems.

https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=1529139 - This paper is found through snowballing. It is rejected because it is about proposing a system architecture for in-vehicle telematics and infotainment system (IVTIS)

https://ieeexplore.ieee.org/abstract/document/1030856 - This paper is about service-based architecture for in-vehicle telematics systems using Jini Middleware Technology

https://ieeexplore.ieee.org/document/7185063 - This paper is found through snowballing. This paper is rejected as it is not related to AGL and IVI

https://ieeexplore.ieee.org/document/5196223 - This paper is about IVI SW architecture based on google android

https://ieeexplore.ieee.org/document/7684704 - This paper is about pilot In-Vehicle Infotainment Learning platform

https://ieeexplore.ieee.org/abstract/document/7519309 - This paper is about adopting multi-core processors in automotive applications

https://ieeexplore.ieee.org/abstract/document/8679052 - This paper is about challenges in automotive security.

https://ieeexplore.ieee.org/abstract/document/6673354 - This paper talks about different components of the Connected Car ecosystem

https://ieeexplore.ieee.org/abstract/document/7310999 - This paper is about providing a platform to implement services for connected car like identity management and data storage

https://dl.acm.org/doi/abs/10.1145/1969773.1969803 - This paper is about exchanging services and user interfaces between cars and nomadic devices.

https://ieeexplore.ieee.org/document/1435746 - This paper is found through snowballing. This paper is about the communication systems of in-vehicle embedded systems.

https://www.mdpi.com/1424-8220/17/6/1289/htm - This paper is found through snowballing. This paper is about Home IoT connected vehicles

https://dl.acm.org/doi/10.1145/1402946.1403006 - This paper is found through snowballing. The paper is about developing a protocol ViFi which can overcome challenges faced by the users while using wifi in moving vehicles.

https://patents.google.com/patent/US10419906B2/en - This paper is about Self-learning Bluetooth infotainment connectivity

Related Papers related to OTA

Keyword used for search : Automotive Grade Linux + OTA update, AGL + OTA, AGL + Over the Air update, AGL + infotainment updates, AGL + Software updates

1. https://ieeexplore.ieee.org/abstract/document/8628558
   It talks about how Adaptive AUTOSAR can be used in combination with AGL for updates.
   Adaptive AUTOSAR provides the software platform to connect the vehicle's ECUs to outside road services. However, to show the significance of adaptive AUTOSAR a GUI is needed, which is not provided by adaptive AUTOSAR. In contrast, AGL provides a useful GUI implementation which is easy to implement. Thus a combination of adaptive AUTOSAR and AGL is beneficial.

2. https://ieeexplore.ieee.org/document/9179288/

This paper talks about Yocto Project, whose focus is to have an improved software development process for embedded Linux distributions, is a project that was launched by Linux Foundation in 2010. AGL uses Yocto project.

3. https://www.sciencedirect.com/science/article/pii/S0141933120304178
   This paper talks about various automotive software update update frameworks and indicates UPTANE is a reliable framework. AGL uses UPTANE framework for software updates. But this paper doesn't talk about AGL directly.

4. https://ieeexplore.ieee.org/document/8278174
   This paper talks entirely about what UPTANE is. AGL uses UPTANE framework for software updates.

Papers which were discarded:

1. https://ieeexplore.ieee.org/document/6320530
   Not related to AGL. This papers talks about use of Javascript for IVI
2. https://ieeexplore.ieee.org/abstract/document/8690548
   Not related to AGL. This paper talks about shoulder-tapping the vehicle's OTA client by utilizing wireless Wake-Up Receiver (WUR) sensors enabling so-called OTA-On-Demand (OOD) in Wireless LANs (WLANs).
3. https://ieeexplore.ieee.org/abstract/document/8576249
   Not related to AGL. This paper talks about a design where existing IoT technology is utilized to enhance automotive middleware (Adaptive AUTOSAR) and enable remote monitoring and diagnostics services for vehicles.
4. https://ieeexplore.ieee.org/document/7575379
   Not related to AGL. This paper talks about Adaptive AUTOSAR.
5. https://ieeexplore.ieee.org/document/7927914
   Not related to AGL. It talks about various Architectures for automotive.
6. https://ieeexplore.ieee.org/document/8576209
   Not related to AGL. It talks about Digital Cockpit on Linux operating system, within AUTOSAR Adaptive Platform.
7. https://ieeexplore.ieee.org/document/8901126
   Not related to AGL. It talks about introduction into the field of electromobility and automotive software.
8. https://ieeexplore.ieee.org/abstract/document/8889527
   Not related to AGL. It talks about central vehicle computer-a brain for next generation vehicles which is everything but easy to design.
9. https://www.gsaglobal.org/wp-content/uploads/2018/12/3.-Rethinking-car-software-and-electronics-architecture-Feb-2018.pdf
   Not related to AGL. It talks about future vehicle electronic and software architecture, which doesn't include AGL.
10. https://www.sae.org/publications/technical-papers/content/2017-01-1659/

Not related `to AGL. It talks about introduction of automotive firewalls into the next-generation domain architecture with a focus on partitioning of its features in hardware and software.

11. https://ieeexplore.ieee.org/abstract/document/7539114
    Not related to AGL. It talks about proposal of a low-complexity speed limit detection which can not only support different types of speed limit signs for multiple countries, but maintain good detection rate under inclement weathers.
12. https://www.sae.org/publications/technical-papers/content/2015-01-1998/
    Not related to AGL. This paper outlines past, present and future applications of automotive security for engine ECUs.
13. https://ieeexplore.ieee.org/abstract/document/8887788
    Not related. It talks about introducing a lightweight software- based security framework which provides legacy ECUs with software-based virtualization and protection features along with custom security services.
14. https://ieeexplore.ieee.org/document/8141933
    Not related to AGL. It talks about SecUp, a generic framework enabling secure and efficient wireless automotive SW updates is proposed.
15. https://link.springer.com/article/10.1007/s12239-018-0085-1
    Not related. It talks about reviewing current techniques on automotive secure communication and suggest suitable secure approaches to implement on the in-vehicle networks.
16. https://link.springer.com/chapter/10.1007/978-3-319-73512-2_6
    Not related. It talks about automotive cybersecurity.
17. https://link.springer.com/chapter/10.1007/978-3-319-33201-7_8
    Not related. It talks about Intelligent Vision Processing Technology for Advanced Driver Assistance Systems.
18. https://link.springer.com/chapter/10.1007/978-3-030-35333-9_32
    It talks about Kuksa, microservice architecture for providing continuous delivery in the automotive domain.

20.https://d1wqtxts1xzle7.cloudfront.net/58325594/Runtime_Self-Protection_in_a_Trusted_Blockchain-inspired_Ledger.pdf?1549243563=&response-content-disposition=inline%3B+filename%3DRuntime_Self_Protection_in_a_Trusted_Blo.pdf&Expires=1600788951&Signature=OS7JsneFQ0le~aimAkQl7qDIM3mhZmOrYd99NZkek6LX66c1-8v~hxa1TIm7-qTcsU1J6FQUaG0VkOUd59p0JMl1-CpSASKfXuRaDPfXsrlQreUoCHeppLvnB7SnkWD4fbmK8NaH13JqCO~gm8rLrEtTF9BuHh~8esIPViAiphNR-9HG-k0qPfNQP0sFN-b3E2U4YQx5Lbw1Lo3~gFOa7VPAX6CyZBizy4t3ezON6pDYLaazsf~EhlSnJd8t14Kr92FIt3QxCVNoCIlmts22acBDdprB~LT1KF-T8-1jT7uD6aQ8EAUmIvOgyOyCnRChJ6PBO5r3kZd4xJmXL29wBQ__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA

It talks about an approach for self-protection of a networked system enabled through software protection technologies communicating through a distributed ledger.

Related papers to streaming

Keyword used for search : Automotive Grade Linux + streaming, AGL + Streaming apps, Infotainment streaming,Automotive Grade Linux + streaming, AGL + Streaming apps, Infotainment streaming,automotive grade linux + stream,automotive grade linux + network + stream,automotive grade linux + data + stream,automotive + infotainment + stream, automotive + infotainment + data, AGL + Stream, AGL+Infotainment, AGL streaming application

1. http://ceur-ws.org/Vol-2066/seerts2018paper03.pdf
   It Talks about Kuksa eclipse platform . It gives a brief overview of how Kuksa is built on top of AGL and other open source technologies.

Unrelated content

1. https://www.igi-global.com/chapter/embedded-virtualization-techniques-for-automotive-infotainment-applications/116118
   It talks about virtualization of embedded system for Infotainment, Not relevant to AGL
2. https://www.sae.org/publications/technical-papers/content/2015-01-0224/
   Access not available for this paper
3. https://www.sciencedirect.com/science/article/pii/S014036641731174X
   Not related to AGL and It talks about existing security and privacy mechanism within automobile applications, discuss about the existing gaps and things to improve.
4. https://www.sciencedirect.com/science/article/pii/S0923596516000072
   Not related to AGL and This paper presents a new approach for modelling the perceptual quality of automotive video corrupted by packet loss.
5. https://ieeexplore.ieee.org/abstract/document/6673354
   Not related to AGL. It briefly talks about different components of the Connected Car ecosystem and highlight why it will remain very heterogeneous for some time.
6. https://www.sciencedirect.com/science/article/pii/S1569190X16000022
   Not related to AGL. It talks about in-vehicle networks suitable for use in multi-camera, high bandwidth environments.
7. https://ieeexplore.ieee.org/abstract/document/7819351
   Not related to AGL. It talks about network performances for ADAS systems in vehicles.
8. https://ieeexplore.ieee.org/abstract/document/7684704
   Not related to AGL. It talks about Pilot IVI Learning Platform based on GENIVI for educational purpose .
9. https://ieeexplore.ieee.org/document/7931972
   Not related to AGL. It talks about Java API for IVI.
10. https://ieeexplore.ieee.org/abstract/document/4383630
    Not AGL related. IVI is implemented using MOST(Media Oriented Systems Transport) field bus.
11. https://ieeexplore.ieee.org/abstract/document/8618518
    Not related to AGL. This paper talks about integrated Surround View (SV) and Camera Mirror System (CMS) using TDA2P-Texas Instrument's vision SoC.

12. https://search.proquest.com/openview/abbd8db837fe2ef5d87835c3efa3acf3/1?pq-origsite=gscholar&cbl=18750&diss=y
    Not related to AGL. It talks about techniques for easily building real-time parallel stream processing pipelines with predictable performance.
13. https://dl.acm.org/doi/abs/10.5555/3283535.3283547
    Not related to AGL. It talks about NVIDIA standard approach to GPU application scheduling on a Drive PX platform.
14. http://jultika.oulu.fi/files/nbnfioulu-201809072762.pdf
    Not related to AGL. It talks about Data analytics.
15. https://ieeexplore.ieee.org/abstract/document/7310999/
    Not related to AGL. It talks about Connected-Car Prototyping Platform that is been built and reusable application templates it provides to enable prototyping of telematics service.
16. https://ieeexplore.ieee.org/abstract/document/7503692
    Not related to AGL. It talks about new platforms for Cyber-physical systems.
17. https://ieeexplore.ieee.org/abstract/document/8603197
    Not related to AGL. It talks about design of a prototype real-time scheduler for GPU activities on an embedded System on a Chip (SoC) featuring a cutting edge GPU architecture by NVIDIA adopted in the autonomous driving domain.
18. https://ieeexplore.ieee.org/abstract/document/7359144
    Not related to AGL. It talks about Virtualized Automotive DIsplay (VADI) system to virtualize a GPU and its attached display device.
19. http://congress.fitce.org/2006/paper/513.pdf
    Not related to AGL. It talks about Next Generation Network Platform for Mobile Services & Automotive Telematic.
20. https://link.springer.com/chapter/10.1007/978-3-319-76998-1_7
    Not related to AGL. It based on IoT Challenge: Older Test Machines Modernization in an Automotive Plant.
21. https://ieeexplore.ieee.org/abstract/document/8987693
    This paper talks about investigate the possibility of using symmetric encryption algorithms for securing messages exchanged by CAN protocol.

22. https://books.google.se/books?hl=en&lr=&id=dsxPDwAAQBAJ&oi=fnd&pg=PP1&dq=automotive+grade+linux+%2B+stream&ots=klH19wBtKn&sig=gpPBCfee6JWZ-rZMP-Nkdp0zumU&redir_esc=y#v=onepage&q&f=false
    This book is about Stream Analytics with Microsoft Azure: Real-time data processing for quick insights using Azure Stream analytics.
23. https://ieeexplore.ieee.org/abstract/document/7888918
    This paper proposes a hybrid communication approach based on 4G/LTE and the IEEE 802.11p technologies to support a V2X video streaming application.

24. https://ieeexplore.ieee.org/abstract/document/8320765

This paper elaborates network slicing from an end-to-end perspective detailing its historical heritage, principal concepts, enabling technologies and solutions as well as the current standardization efforts.

25.https://ieeexplore.ieee.org/abstract/document/8908437

This paper talks about MANTIS project which is designing a comprehensive framework for the development of heterogeneous applications in intelligent transportation systems and at implementing and demonstrating driver assistance systems towards improvement of road transport.

26. https://ieeexplore.ieee.org/abstract/document/8500154

This paper introduces the system architecture of the eCall system and the theoretical model of the eCall in-band modem.

27.https://dl.acm.org/doi/abs/10.1145/2971482

The aim of this article is to provide an overview of the possibilities offered by connected functionalities on cars and the associated technological issues and problems, as well asto enumerate the currently available hardware and software solutions and their main features.

28.https://ieeexplore.ieee.org/abstract/document/9109410

This article presents one experience with the design and implementation of a consumer electronics (CE) software module using automotive software process improvement and capability determination (A-SPICE) methodology.

29.https://ieeexplore.ieee.org/abstract/document/8679052

This paper talks about cyber security attacks in connected cars, the weaknesses in vehicle systems and emerging threats.

30.https://www.sciencedirect.com/science/article/pii/S0141933116304550

This paper gives an overview of the integrated Hercules software framework, which allows achieving an order-of-magnitude of predictable performance on top of cutting-edge Commercial-Off-The-Shelf components (COTS).

31.https://www.researchgate.net/profile/Murali_Padmanabha/publication/330195560_System_Design_of_a_Modern_Embedded_Linux_for_In-Car_Applications/links/5c3335b7299bf12be3b510c5/System-Design-of-a-Modern-Embedded-Linux-for-In-Car-Applications.pdf

. In this paper, we present an approach and the corresponding framework for building a Linux system for in-car applications.

32. https://www.sae.org/publications/technical-papers/content/2018-01-0021/

This paper discusses hardware and software design considerations in implementing Suspend mode in an automotive ECU, presents a sample power management design, and describes how Suspend-Resume is implemented in the Linux operating system.

Apple Carplay & Android auto

Keywords used: carplay, Apple CarPlay, Connected cars, Mobile platforms, Mirrorlink.
Related Papers:

1. https://link.springer.com/chapter/10.1007/978-3-319-97163-6_2
2. https://link.springer.com/chapter/10.1007/978-3-319-49448-7_1
3. https://tutcris.tut.fi/portal/files/13887121/Proc_IWSECO_2017.pdf#page=24
4. https://developers.google.com/cars/design/android-auto
5. https://en.wikipedia.org/w/index.php?title=Android_Auto&oldid=899977665
6. https://en.wikipedia.org/wiki/Android_Auto
7. https://en.wikipedia.org/w/index.php?title=Android_Auto&oldid=899977665

Unrelated papers:

1. https://link.springer.com/chapter/10.1007/978-981-10-0557-2_2
2. https://ieeexplore.ieee.org/abstract/document/7795269
3. https://dl.acm.org/doi/abs/10.1145/2493190.2493224?casa_token=50ivBWusA3oAAAAA:aNvqpyscoGfHwnD8RgHGbwO7cZJiYIR9toaSrQIlNBWuCELBn21e1SvOH1GLd_AAxyVvSdd5i0v5Yw
4. https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6398700
5. https://dl.acm.org/doi/abs/10.1145/1969773.1969801?casa_token=QidVL-Zd7ycAAAAA:nPwZ-bpFtAM1jDDwLqREwgqtFpwjNua-iGd1z67W3R_UoAgAvwBlkpLzbmp75fgaX23QYebwcnmz2A
6. https://ieeexplore.ieee.org/abstract/document/7325064
7. https://ieeexplore.ieee.org/abstract/document/5744063
8. https://ieeexplore.ieee.org/abstract/document/8074645
9. https://ieeexplore.ieee.org/abstract/document/8333760
10. https://ieeexplore.ieee.org/abstract/document/7684751?casa_token=47kS9ZtvPZEAAAAA:Z-FhU3drbskvXk2oRqyHVw6Mj8mlZWCU6DN9BjiJktumW569r_T9kz9xQhwUf6ztpop-4FktiA
11. https://ieeexplore.ieee.org/document/8576222
12. https://ieeexplore.ieee.org/document/7684751
13. https://ieeexplore.ieee.org/abstract/document/7317973
14. https://journals.sagepub.com/doi/full/10.1177/0018720819836575
15. https://ieeexplore.ieee.org/abstract/document/7428388?casa_token=cylsjKIKVPUAAAAA:WOOwr5vL9asFaIQCyNeVtMbfP_TursmgnRgPjcgp4iLMq-MOlil315OULIEwqF2OZMQoq9ZE3g
16. https://dl.acm.org/doi/10.1145/2799250.2799277
17. https://ieeexplore.ieee.org/document/8396075/
18. https://ieeexplore.ieee.org/abstract/document/7391219/
19. https://ieeexplore.ieee.org/abstract/document/8663132
20. https://ieeexplore.ieee.org/abstract/document/7317973
21. https://ieeexplore.ieee.org/abstract/document/8667973

22. https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8500281
23. https://ieeexplore.ieee.org/abstract/document/8830589
24. https://ieeexplore.ieee.org/abstract/document/7363208
25. https://www.scitepress.org/Papers/2019/76782/76782.pdf
26. http://www.iacis.org/iis/2020/2_iis_2020_49-56.pdf
27. https://ieeexplore.ieee.org/abstract/document/8448709
28. https://ieeexplore.ieee.org/abstract/document/7430536/
29. https://ieeexplore.ieee.org/abstract/document/7684751
30. https://dl.acm.org/doi/fullHtml/10.1145/2811286
31. https://iris.unive.it/retrieve/handle/10278/3714436/164628/Software%20Practice%20%26%20Exp.%2020-03-2019%20%281%29.pdf
32. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.685.3575&rep=rep1&type=pdf