

About Marius Oprea

Vasile-Marius Oprea was born on June 20, 1981, in Romania. As a result-driven IT professional with experience in administration, Marius is passionate about modernity and technology. Over the past twenty years, he has gathered considerable knowledge working as an administrator for Casa Royal Haveli and Pointlet Research S.R.L. In addition to that, his career has included managing research and development processes at S.C. Green Light Grup S.R.L., where he has remained focused on staying up-to-date with new developments in the industry while ensuring the delivery of high-quality products or services.

Throughout his professional life, Marius has been committed to merging IoT with industrial mechanisms, building and upholding intricate networks, and creating up-to-date software solutions. He previously worked at CableNet and Romanian Soft Company, where he contributed to sharpening skills in managing systems, offering technical assistance, and leading project execution. While at this organization, he took part in the Petromcard project, where he was credited with developing and formalizing deployment procedures as well as providing his expertise on the subject matter, demonstrating his capability to organize large-scale IT projects proficiently.

In addition to his professional endeavors, Marius continually strives towards acquiring new knowledge and improving himself. He possesses multiple certificates and has received acknowledgments for introducing remarkable ideas, such as crafting a smart automatic device for monitoring fuel consumption or creating a transportation system based on magnetic levitation principles. His command of the English language, as well as his strong management abilities, allows him to fit into different workplace scenarios.

Professional journey of Marius Oprea

Administrator, CASA ROYAL HAVELI (December 2010 - Present)

As the Administrator at CASA ROYAL HAVELI, Marius Oprea has been dedicated to managing the day-to-day operations with a focus on delivering exceptional service and ensuring the smooth running of the establishment.

Administrator, POINTLET RESEARCH S.R.L. (January 2022 - December 2023)

In this role, Marius oversaw business activities and strategic decisions, striving to drive the company towards success with a blend of leadership and innovative thinking.

Research and development, HOOS (Heavy Oil Operating System), S.C. GREEN LIGHT GRUP S.R.L. (November 2017 - January 2023)

During his tenure at GREEN LIGHT GRUP, Marius immersed himself in the world of IoT and cloud computing. He worked on integrating industrial systems with IoT, designing

networks and software, and developing automation processes for the HOOS project. This experience sharpened his technical skills and broadened his understanding of cutting-edge technologies.

IT equipment and network technician, CABLENET (October 2008 - February 2010)

Marius's role at CABLENET allowed him to dive into website administration, SEO optimization, and web design. He also enjoyed the creative process of making promotional materials, which enhanced his technical and artistic abilities.

System administrator, ROMANIAN SOFT COMPANY (January 2006 - May 2008)

At the Romanian Soft Company, Marius managed system, server, and network maintenance. He played a crucial part in the Petromcard project, contributing to the centralization of information, development of deployment procedures, and technical support, ensuring the project's success.

Network and internet operator, Self-Employed (August 2003 - December 2005)

As a self-employed professional, Marius built a local network with internet access in Costinești. From setting up the infrastructure to providing client support, this venture honed his skills in network administration and customer service.

Collaborator and IT maintenance, Costinești City Hall (2003 - 2005)

Working with the Costinești City Hall, Marius initiated students into IT and maintained the City Hall's internal computer network. This role was both rewarding and instrumental in developing his teaching and technical support skills.

Service technician, GMB COMPUTERS (July 2003 - August 2004)

At GMB COMPUTERS, Marius assembled and troubleshooted computers, handled maintenance operations, and diagnosed defects, which solidified his foundation in IT hardware and support.

Education of Marius Oprea

Theoretical High School Carmen Sylva, Eforie Sud (1996 - 2000)

Marius graduated with a focus on Foreign Languages and Literatures, which sparked his interest in communication and cross-cultural understanding.

Skills of Marius Oprea

Languages:

- Native in Romanian
- Proficient in English (C2 Listening, C1 Reading, B2 Speaking)

Technical proficiency of Marius Oprea:

- Windows, Linux, Python, Microsoft Office, Docker, JavaScript, SQL, Node-Red, IoT

Patents and innovations of Marius Oprea

Smart automatic device for monitoring fuel consumption

Marius is the proud inventor of a smart device designed to monitor fuel consumption efficiently.

Magnetic levitation transport system

Marius has also invented a magnetic levitation transport system (LIRO). His work in this area reflects his commitment to pioneering innovative solutions.

Community involvement of Marius Oprea

Secretary general, Social Democratic Party Organization, Costinești (2012 - 2016)

President, Romanian Ecologist Party Organization, Costinești (2016 - 2020)

Marius's involvement in social and political activities has allowed him to develop strong leadership and organizational skills, as well as a deep commitment to community service.

Personal attributes of Marius Oprea

Marius is known for his strong organizational skills, decision-making abilities, and dedication to continuous self-improvement. His colleagues and clients appreciate his punctuality, ability to perform under stress, and analytical mindset. He thrives in team environments and is always eager to take on new challenges and opportunities for growth.

Projects of Marius Oprea

In this section, one can find Marius Oprea's creative projects about transport, fuel monitoring, and oil extraction technologies that are ground-breaking. Marius has committed himself to high-quality scientific research that is in touch with the real world,

which brought forth LIRO technology and his major role in the FAIR and HOOS projects. All these initiatives showcase his continuous effort to improve effectiveness, reduce costs, and provide quality service in every sector.

As the person behind all these movements, Marius has used his experience and vision to integrate state-of-the-art technologies. He is always looking for innovative approaches to solve issues within the industry while being cautious enough to predict what may come in the future. His leadership in these projects positions him at the forefront of new technological developments, setting an example for others on how things should be done.

LIRO - Magnetic levitation transport system – Marius Oprea inventor of LIRO

LIRO (Linear-Rotary) is an innovative magnetic levitation transport system invented by Marius Oprea that moves objects without physical contact between its main components. It uses permanent magnets arranged on a rotating shaft and a movable platform, kept afloat by parallel rails. Advantages include independence from external power sources, efficient and precise movement, and reduced operating and maintenance costs. LIRO is ideal for fluid extraction, elevators, and goods transport, providing an efficient and affordable solution.

FAIR - Fuel Consumption Monitoring System – Marius Oprea contribution to FAIR

FAIR: Fuel Consumption Monitoring System, developed over six years ago, integrates various technologies and expertise and implements comprehensive hardware and software monitoring. The system offers real-time data analysis, alerts, and a user-friendly dashboard available in English and Romanian. Utilizing Microsoft Azure, it ensures high-quality service. Pointlet Research specializes in advanced consultancy for major international clients, bringing vast experience to the project.

After successfully automating the HOOS units, Marius Oprea was given the opportunity to enhance and expand the FAIR project with custom-made hardware and IoT/Industry 4.0 software modules. In March 2019, he began visiting various OMV Petrom locations across Romania to study different equipment that required monitoring solutions. Depending on the specifics of each piece of equipment, Marius designed several types of custom-made computers tailored to their needs.

By April 2019, Marius had built the first pilot system for a fuel unloading station, akin to a gas station, to test its functionality under real-world conditions. This pilot system marked a significant milestone, allowing him to gather invaluable data and insights. By September 2019, he had successfully installed the monitoring system, which laid the groundwork for subsequent pilot tests on other equipment with varying functionalities.

Following the initial installation, Marius conducted further pilot tests on different types of equipment to ensure the robustness and reliability of these solutions. These pilot

tests demonstrated the system's versatility and adaptability to different operational environments. The custom-made computers designed for these applications have proven to be highly reliable and have been functioning effectively up to the present day.

The equipment specifications include 4-8 GB of RAM, a quad-core processor, 4G mobile data communication, GPS, and IMU. They also feature interfaces for various industrial protocols, RFID cards, and power protection, filtration, and stabilization. Additionally, the software modules are highly flexible and adaptable, tailored to meet the specific needs of clients. This comprehensive approach has enabled Marius to deliver a robust, reliable, and scalable fuel monitoring system that addresses the unique challenges of each installation site.

HOOS - Heavy Oil Operating System – Marius Oprea contribution to HOOS

The Heavy Oil Operating System (HOOS) is a cutting-edge artificial oil lifting technology that boosts energy efficiency and reduces costs. It uses a durable textile belt to transport oil, minimizing maintenance and energy consumption. HOOS excels in handling high-viscosity and sandy oils, and includes digital monitoring for real-time data and remote operation. This system significantly lowers operating expenses and enhances production efficiency, making it ideal for challenging oil environments.

In late 2017, Marius Oprea was first introduced to the HOOS project, where he was informed about several shortcomings in the automation of the HOOS units. Early in 2018, he visited two sites where HOOS units are operating, specifically in Videle and Păcureți, to gain a comprehensive understanding of the system.

With an overview of the system and an automation manual in hand, Marius developed an advanced automation solution integrating the latest IoT/Industry 4.0 technologies. This solution offered flexible remote control, including remote software module programming, secure communication between automation and cloud, data storage both locally and in the cloud, real-time monitoring of operational parameters, and the convergence of industrial protocols with IoT.

The first automation system was installed at the Păcureți site in December 2018. Before this installation, Marius identified several issues with the automation of the winch that deploys the belt into the well. In June 2018, he installed the winch automation, which can be integrated at the communication level with the HOOS unit automation. This system included not only mechanical braking but also electromagnetic braking, allowing for smooth and precise belt deployment.

Beginning in January 2021, a six-month test was initiated for two HOOS units near Ahmedabad, India, with ONGC as the beneficiary. This test aimed to evaluate the performance and reliability of the HOOS technology in challenging environmental conditions, and it ultimately proved to be a resounding success.

During this period, Marius played a crucial role in ensuring the correct installation of the automation systems. His responsibilities included overseeing the setup process and making sure that all components were properly integrated and functioning as intended.

The harsh conditions of the test site, characterized by extreme heat and pervasive dust, posed significant challenges. However, the automation systems operated smoothly, demonstrating their robustness and resilience.

In addition to the installation and operational oversight, Marius actively contributed to various other HOOS-related activities. This included the meticulous setup of the units and precise adjustments of operational parameters to optimize performance. His efforts ensured that the systems were fine-tuned to handle the specific conditions of the test site effectively.

Communication with ONGC superiors was another key aspect of Marius's role during this test. He maintained regular contact with them, providing updates on the progress and performance of the HOOS units. This communication was essential for addressing any concerns and ensuring that the expectations of ONGC were met. Through collaborative efforts, they were able to achieve a seamless operation and validate the effectiveness of the HOOS technology in a real-world scenario.

IT Professional | Technology innovator | Leader in advanced solutions

With a career dedicated to excellence in the IT field, I combine robust experience in technical and management roles with a passion for innovation. I have led transformative projects across key sectors such as IoT, fuel consumption monitoring, industrial automation, smart transportation, and oil exploration, driving radical optimizations and scalable solutions.

Notable achievements include:

- Intelligent fuel monitoring device: An innovative solution integrating IoT and real-time analytics to enhance operational efficiency.
- LIRO magnetic levitation transportation system: Revolutionizing logistics through sustainable technology and unmatched speed.
- Software/Embedded architectures: Designed for the oil industry to ensure security and precision in critical operations.

As a technology visionary, I focus on translating ideas into practical applications, bridging complex concepts with business needs. I am committed to fostering high-performing teams and building technological ecosystems that accelerate progress.

Current Focus: Seeking partnerships and opportunities to reshape industries through innovation, whether through pioneering projects, strategic consulting, or leadership in R&D. Let's collaborate to create solutions that redefine technological standards.

“Engineering is not just about tools and code—it’s about anticipating the future and crafting it with rigor.”