

بسمه تعالی

فراخوان پروژه پژوهشی

شرکت مهندسی درسم نفت

موضوع پژوهش:

ارزیابی پیشرفته اشباع آب مخازن میدان غرب کارون با تمرکز بر میدان آزادگان و ارائه روشی بهینه برای محاسبه ضرایب سیمان شدگی و نمای اشباع با استفاده از داده های نمودارگیری پتروفیزیکی تولیدی، ارزیابی های معمول و پیشرفته مغزه و روش های یادگیری ماشین

بازه مجاز برگزاری پیشنهادات پژوهشی: ۱۰ شهریور ۱۴۰۲

توضیحات:

امور پژوهش و توسعه شرکت مهندسی و توسعه نفت در نظر دارد با بررسی فنی و مالی پیشنهادات پژوهشی فوق، یک پیشنهاد پژوهشی را از میان پیشنهادات دریافتی، جهت عقد قرارداد انتخاب نماید. در این پروژه پژوهشی موارد ذیل مورد انتظار است:

- ۱- ضروری است تا با مطالعه ای تمامی داده های موجود روشی بهینه و تعلیم پذیر با استفاده از قابلیت یادگیری ماشین ارائه شود تا هزینه ها به صورت بهینه در میدان مصرف گردد.
  - ۲- بکارگیری تمامی داده های موجود در میدان غرب کارون بخصوص آزادگان برای ارزیابی بهینه اشباع آب و انجام تحلیل دقیق برای تولید نفت با نظرمگرفتن ناهمگنی های موجود در مخازن کربناته
- هر پیشنهاد باید دارای برآورد دقیق مالی باشد که تا سه لایه شکسته شده است.

تمامی پیشنهادات رسیده به دقت در کمیته های فنی بررسی می شود و در صورت نیاز به توضیح بیشتر با مجری محترم پیشنهاد تماس حاصل خواهد شد.

مدت زمان پیشنهادی: حداکثر ۶ ماه

لطفاً پیشنهادات پژوهشی خود در قالب فرصت اسناددارد پژوهش و فناوری شرکت ملی نفت به آدرس ایمیل ذیل ارسال گردد.

[Roomi.aras@gmail.com](mailto:Roomi.aras@gmail.com)

## Head of research and development

### Job Description:

Development of research programs involving the use of current knowledge to improve existing products and study the potential of new products

Overseeing all aspects of the research and development program assigned to him

Report to senior management on technical issues of the company's products as well as technical developments in the market

Attending industry conferences and related exhibitions on research topics of interest to the company

Creation and development of test methods for quality control of raw materials, quality control of the production process, as well as improving the quality of final products.

Management and guidance of the company's research team

Budgeting and forecasting the cost of technical development or research programs.

### Features and conditions

- Master's degree or PHD in mechatronics or (electronics (computer science) and familiar with mechanics).
- Experience working with git and pdm.
- Deep knowledge in c++/c# or .net and solidworks.
- Familiar with project management platforms such as Clickup or Trello or...
- Deep knowledge of agile development concepts
- 5-10 years of experience in managing R&D teams.
- Deep knowledge in R&D documentation.
- High work spirit.
- Being available at required hours and days outside the company's working hours.
- High ability to solve problems and provide new, simple and applicable solutions.
- Regular, punctual and accurate

## Mechatronic Engineer

### Job Description

DNS is looking for a talented individual to work within the vehicle control team to develop optimization-based control algorithms.

The focus of the position is to develop optimization-based control algorithms for lateral and longitudinal control of an autonomous vehicle.

### Responsibilities

To develop optimization-based control algorithms for simple to complex physical systems

To identify the critical states and parameters of the system and to develop linearized/simplified dynamic models

Design of the tests for model verification in the real environment

Working cross-functionally with various groups including, path planning, localization, perception, etc.

### Requirements

- Deep understanding of the model-based and optimization-based control theories like MPC and LQR.
- Understanding of the linear and nonlinear behavior of complex physical systems
- Understand the key methods for parameter and state estimation in the field of autonomous driving
- Deep knowledge in control design and stability of linear and nonlinear systems
- Aid to develop mathematical high-fidelity models of the complex physical systems
- Capable of analyzing dynamic model performance in MATLAB/Simulink via data analysis
- Strong programming skill in C++ and ROS
- PhD or master's degree (with at least 3 years of experience) in control, robotics, or related engineering field
- Strong communication and preference to work in teams
- Preferred Understand the concepts of Perception - Static and Dynamic objects, Ego localization, OEDR (Object and Event Detection & response)
- Familiar with hardware used for self-driving cars
- Understand the safety frameworks and current industry practices for vehicle development

## **Mechanic Engineer (Conceptual Designer)**

### **Job Description**

Mechanical engineering conceptual designer creates conceptual and technical drawing for the design of mechanical devices.

Work closely with electrical and metallurgy engineers and must have mental ability to design new concepts for completing this work and they develop drawings for a wide variety of machines.

Report to the director of their engineering team. The Majority of mechanical Designer works is for manufacturability of the designed mechanical systems.

Works in an office setting, reviewing specifications and other data to develop mechanical layouts. Designers must have working knowledge of mechanical parts as well as computer-aided design (CAD) software, such as Solid works and Catia.

Mechanical designers may travel to job sites or factories to measure physical dimensions for machinery and observe production lines and solve the probable design problems.

### **Requirements**

- Good command of CAD/CAM software (Solidworks or inventor )
- Good command of geometrical and numerical tolerance
- Good commands of finite element modeling and simulation by ANSYS OR ABAQUS
- Expert in drafting and making detailed manufacturing drafts
- Familiar with making BOM
- Familiar with PDM
- Familiar with "Rhino" software would be and advantage
- Ideal Age Range: 23 – 35