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KEY=CHAPTER - HUGHES CARLA

JOB INTERVIEW OFFSHORE OIL & GAS RIGS

Petrogav International The job interview is probably the most important step you will take in your job search journey. Because it's always important to be prepared to respond effectively to the questions that employers typically ask at a job interview Petrogav International has prepared this eBooks that will help you to get a job in oil and gas industry. Since these questions are so common, hiring managers will expect you to be able to answer them smoothly and without hesitation. This eBook contains 282 questions and answers for job interview and as a BONUS web addresses to 289 video movies for a better understanding of the technological process. This course covers aspects like HSE, Process, Mechanical, Electrical and Instrumentation & Control that will enable you to apply for any position in the Oil and Gas Industry.

100 TECHNICAL QUESTIONS AND ANSWERS FOR JOB INTERVIEW OFFSHORE DRILLING RIGS

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HOW TO BE PREPARED FOR JOB INTERVIEW OFFSHORE OIL & GAS RIGS

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100 QUESTIONS AND ANSWERS FOR JOB INTERVIEW OFFSHORE DRILLING PLATFORMS

Petrogav International This book offers you a brief, but very involved look into the operations in the drilling of an oil & gas wells that will help you to be prepared for job interview at oil & gas companies. From start to finish, you'll see a general prognosis of the drilling process. If you are new to the oil & gas industry, you'll enjoy having a leg up with the knowledge of these processes. If you are a seasoned oil & gas person, you'll enjoy reading what you may or may not know in these pages. This course provides a non-technical overview of the phases, operations and terminology used on offshore drilling platforms. It is intended also for non-drilling personnel who work in the offshore drilling, exploration and production industry. This includes marine and logistics personnel, accounting, administrative and support staff, environmental professionals, etc. No prior experience or knowledge of drilling operations is required. This course will provide participants a better understanding of the issues faced in all aspects of drilling operations, with a particular focus on the unique aspects of offshore operations.

THE IGBT DEVICE

PHYSICS, DESIGN AND APPLICATIONS OF THE INSULATED GATE BIPOLAR TRANSISTOR

William Andrew The IGBT device has proved to be a highly important Power Semiconductor, providing the basis for adjustable speed

motor drives (used in air conditioning and refrigeration and railway locomotives), electronic ignition systems for gasolinepowered motor vehicles and energy-saving compact fluorescent light bulbs. Recent applications include plasma displays (flat-screen TVs) and electric power transmission systems, alternative energy systems and energy storage. This book is the first available to cover the applications of the IGBT, and provide the essential information needed by applications engineers to design new products using the device, in sectors including consumer, industrial, lighting, transportation, medical and renewable energy. The author, B. Jayant Baliga, invented the IGBT in 1980 while working for GE. His book will unlock IGBT for a new generation of engineering applications, making it essential reading for a wide audience of electrical engineers and design engineers, as well as an important publication for semiconductor specialists. Essential design information for applications engineers utilizing IGBTs in the consumer, industrial, lighting, transportation, medical and renewable energy sectors. Readers will learn the methodology for the design of IGBT chips including edge terminations, cell topologies, gate layouts, and integrated current sensors. The first book to cover applications of the IGBT, a device manufactured around the world by more than a dozen companies with sales exceeding \$5 Billion; written by the inventor of the device.

OFFSHORE OIL & GAS RIGS JOB INTERVIEW

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JOB INTERVIEW QUESTIONS AND ANSWERS FOR EMPLOYMENT ON OFFSHORE OIL & GAS RIGS

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position in the Oil and Gas Industry.

TRAINING FOR JOB INTERVIEW OFFSHORE OIL & GAS PLATFORMS

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273 TECHNICAL QUESTIONS AND ANSWERS FOR JOB INTERVIEW OFFSHORE DRILLING RIGS

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200 TECHNICAL QUESTIONS AND ANSWERS FOR JOB INTERVIEW OFFSHORE OIL & GAS RIGS

Petrogav International The job interview is probably the most important step you will take in your job search journey. Because it's always important to be prepared to respond effectively to the questions that employers typically ask at a job interview Petrogav International has prepared this eBooks that will help you to get a job in oil and gas industry. Since these questions are so common, hiring managers will expect you to be able to answer them smoothly and without hesitation. This eBook contains 200 questions and answers for job interview and as a BONUS web addresses to 230 video movies for a better understanding of the technological process. This course covers aspects like HSE, Process, Mechanical, Electrical and Instrumentation & Control that will enable you to apply for any position in the Oil and Gas Industry.

PRODUCTION COURSE FOR HIRING ON OFFSHORE OIL AND GAS RIGS

Petrogav International This course provides a non-technical overview of the phases, operations and terminology used on offshore oil and gas rigs. It is intended also for non-production personnel who work in the offshore drilling, exploration and production industry. This includes marine and logistics personnel, accounting, administrative and support staff, environmental professionals, etc. No prior experience or knowledge of drilling operations is required. This course will provide participants a better understanding of the issues faced in all aspects of production operations, with a particular focus on the unique aspects of offshore operations.

PROCEEDINGS OF SAE-CHINA CONGRESS 2015: SELECTED PAPERS

Springer These proceedings gather outstanding papers submitted to the 2015 SAE-China Congress, the majority of which are from China, the biggest car maker as well as most dynamic car market in the world. The book covers a wide range of automotive topics, presenting the latest technical achievements in the industry. Many of the approaches presented can help technicians to solve the practical problems that most affect their daily work.

HIGH TEMPERATURE SUPERCONDUCTING MAGNETIC LEVITATION

Walter de Gruyter GmbH & Co KG The authors begin this book with a systematic overview of superconductivity, superconducting materials, magnetic levitation, and superconducting magnetic levitation - the prerequisites to understand the latter part of the book - that forms a solid foundation for further study in High Temperature Superconducting Magnetic Levitation (HTS Maglev). This book presents our research progress on HTS Maglev at Applied Superconductivity Laboratory (ASCLab) of Southwest Jiaotong University (SWJTU), China, with an emphasis on the findings that led to the world's first manned HTS Maglev test vehicle "Century". The book provides a detailed description on our previous work at ASCLab including the designing of the HTS Maglev test and measurement method as well as the apparatus, building "Century", developing the HTS Maglev numerical simulation system, and making new progress on HTS Maglev. The final parts of this book discuss research and prototyping efforts at ASCLab in several adjacent fields including HTS Maglev bearing, Flywheel Energy Storage System (FESS) and HTS maglev launch technology. We hope this book becomes a valuable source for researchers and engineers working in the fascinating field of HTS Maglev science and engineering.

Contents Fundamentals of superconductivity Superconducting materials Magnetic levitation Superconducting magnetic levitation HTS Maglev experimental methods and set-up First manned HTS Maglev vehicle in the world Numerical simulations of HTS Maglev New progress of HTS Maglev vehicle HTS Maglev bearing and flywheel energy storage system HTS Maglev launch technology

MULTIPHYSICS SIMULATION BY DESIGN FOR ELECTRICAL MACHINES, POWER ELECTRONICS AND DRIVES

John Wiley & Sons Presents applied theory and advanced simulation techniques for electric machines and drives. This book combines the knowledge of experts from both academia and the software industry to present theories of multiphysics simulation by design for electrical machines, power electronics, and drives. The comprehensive design approach described within supports new applications required by technologies sustaining high drive efficiency. The highlighted framework considers the electric machine at the heart of the entire electric drive. The book also emphasizes the simulation by design concept—a concept that frames the entire highlighted design methodology, which is described and illustrated by various advanced simulation technologies. *Multiphysics Simulation by Design for Electrical Machines, Power Electronics and Drives* begins with the basics of electrical machine design and manufacturing tolerances. It also discusses fundamental aspects of the state of the art design process and includes examples from industrial practice. It explains FEM-based analysis techniques for electrical machine design—providing details on how it can be employed in ANSYS Maxwell software. In addition, the book covers advanced magnetic material modeling capabilities employed in numerical computation; thermal analysis; automated optimization for electric machines; and power electronics and drive systems. This valuable resource: Delivers the multi-physics know-how based on practical electric machine design methodologies. Provides an extensive overview of electric machine design optimization and its integration with power electronics and drives. Incorporates case studies from industrial practice and research and development projects. *Multiphysics Simulation by Design for Electrical Machines, Power Electronics and Drives* is an incredibly helpful book for design engineers, application and system engineers, and technical professionals. It will also benefit graduate engineering students with a strong interest in electric machines and drives.

GEORGE WESTINGHOUSE

POWERING THE WORLD

McFarland While most know Thomas Edison for his invention of the light bulb, his counterpart, George Westinghouse, is too often overlooked. Westinghouse, however, became known as one of the most prolific inventors and businessmen of the Industrial Revolution. This biography reveals the man whose teachers suspected was mentally disabled and who quit college after one semester, yet founded more than 60 different companies employing 50,000 people, and received 361 U.S. patents. He later fought the "Battle of the Currents" (AC vs. DC) with Thomas Edison and won. Westinghouse, with his engineers, provided power and light for the 1893 World's Columbian Exposition in Chicago. They harnessed the massive power of Niagara Falls and sent it over wires to light Buffalo and eventually the Northeast. His electric engines powered trains, and his air brakes stopped them. His scientific contributions forever

changed the world.

SPEED CONTROL OF SENSORLESS BRUSHLESS DC MOTOR

BRUSHLESS DC MOTOR CONTROLLER, AC GEAR MOTOR, PERMANENT MAGNET DC MOTOR, LARGE DC MOTORS, BRUSHLESS ELECTRIC MOTOR, BRUSHLESS DC MOTOR, DC MOTORS, SERVO MOTOR

This book is all about running a brushless DC motor using a sensorless technique. The target of the work was to make a very simple operating method for a brushless motor and formulate a speed control mechanism. Initially the work was started with both considering back-EMF and without considering back-EMF. Because of more complexity in the back-EMF sensing method, and as our intention was to make a simpler and cost effective operation, so finally we assembled our project the without back-EMF sensing. Even though being a simple and inexpensive machine, the performance was quite good. However adding back-EMF sensing in this machine can give it more dependability.

TABLE OF CONTENTS:

DECLARATION
APPROVAL
ACKNOWLEDGEMENT
LIST OF FIGURES
VII ABSTRACT
IX CHAPTER 1 INTRODUCTION
 101.1. Introduction
 101.2. Historical Background
 101.3. Advantage over Traditional Method
 111.4. Objective of this Work
 121.4.1. Primary objectives
 121.4.2. Secondary Objectives
 121.5. Introduction to this Thesis
12 CHAPTER 2 BRUSHLESS DC MOTOR
 142.1. Introduction
 142.2. Comparison of Brushless motor with brushed motors
 152.3. Structure of a BLDC
 152.3.1. Stator
 162.3.2. Rotor
 172.4. Operating Principle
 182.4.1. Sensored Commutation
 192.4.2. Conventional Control Method Using Hall-effect Sensors
 202.4.3. Sensorless Control
 222.5. Applications
 232.6. Summary
24 CHAPTER 3 MOTOR DRIVE SYSTEMS
 253.1. Introduction
 253.2. Components of Drive Electronics
 253.3. Inverter
 263.3.1. Three-Phase Inverter
 263.3.1.1. 120-Degree Conduction
 273.3.1.2. 180-Degree Conduction
 293.4. Speed Control Techniques
 303.4.1. Open Loop Speed Control
 313.4.2. Closed Loop Speed Control
 313.4.2.1. Proportional-Integral (PI) Controller
 323.5. PWM based Methods
 333.5.1. Conventional 120° PWM technique
 333.5.2. PWM Duty Cycle Calculation
 333.6. Summary
34 CHAPTER 4 SIMULATION
 354.1. Introduction
 354.2. Simulation
 354.2.1. Simulating Three-Phase Inverter
 364.2.2. Simulating Controller Unit
 384.3. Simulation Results
 394.3.1. Speed Control
 404.4. Summary
40 CHAPTER 5 HARDWARE IMPLEMENTATION
 415.1. Introduction
 415.2. Equipments and Components
 425.3. Power Supply Unit
 435.4. Microcontroller Unit
 445.5. Motor Drive Unit
 455.6. Performance of the System
 465.7. Summary
47 CHAPTER 6 DISCUSSIONS AND CONCLUSIONS
 486.1. Discussions
 486.2. Suggestion for future Work
 496.2.1. Limitations
 496.2.2. Future Scope
 496.3. Conclusions
50 REFERENCES
51 APPENDIX A
53 SPEED CONTROL FLOWCHART
53 APPENDIX B
54 MICROCONTROLLER CODES
54 APPENDIX C
55 ATMEGA32 (MICROCONTROLLER)
 556.3.1. Pin Descriptions
 556.3.2. Block Diagram
 586.3.3. Electrical Characteristics
59 APPENDIX D
60 L298 (DUAL FULL-BRIDGE DRIVER)
 606.3.4. Pin Configurations
 606.3.5. Maximum Ratings
61

ELECTROMAGNETIC LINEAR MACHINES WITH DUAL HALBACH ARRAY

DESIGN AND ANALYSIS

Springer This book extends the conventional two-dimensional (2D) magnet arrangement into 3D pattern for permanent magnet linear machines for the first time, and proposes a novel dual Halbach array. It can not only effectively increase the radial component of magnetic flux density and output force of tubular linear machines, but also significantly reduce the axial flux density, radial force and thus system vibrations and noises. The book is also the first to address the fundamentals and provide a summary of conventional arrays, as well as novel concepts for PM pole design in electric linear machines. It covers theoretical study, numerical simulation, design optimization and experimental works systematically. The design concept and analytical approaches can be implemented to other linear and rotary machines with similar structures. The book will be of interest to academics, researchers, R&D engineers and graduate students in electronic engineering and mechanical engineering who wish to learn the core principles, methods, and applications of linear and rotary machines.

ARDUINO ROBOTICS

Apress This book will show you how to use your Arduino to control a variety of different robots, while providing step-by-step instructions on the entire robot building process. You'll learn Arduino basics as well as the characteristics of different types of motors used in robotics. You also discover controller methods and failsafe methods, and learn how to apply them to your project. The book starts with basic robots and moves into more complex projects, including a GPS-enabled robot, a robotic lawn mower, a fighting bot, and even a DIY Segway-clone. Introduction to the Arduino and other components needed for robotics Learn how to build motor controllers Build bots from simple line-following and bump-sensor bots to more complex robots that can mow your lawn, do battle, or even take you for a ride Please note: the print version of this title is black & white; the eBook is full color.

ENCYCLOPEDIA OF ELECTRONIC COMPONENTS VOLUME 1

RESISTORS, CAPACITORS, INDUCTORS, SWITCHES, ENCODERS, RELAYS, TRANSISTORS

"O'Reilly Media, Inc." Provides information about components, including batteries, capacitors, diodes, and switches.

ELECTRIC VEHICLE TECHNOLOGY EXPLAINED

John Wiley & Sons

BEGINNING ARDUINO PROGRAMMING

Apress Beginning Arduino Programming allows you to quickly and intuitively develop your programming skills through sketching in code. This clear introduction provides you with an understanding of the basic framework for developing Arduino code, including the structure, syntax, functions, and libraries needed to create future projects. You will also learn how to program your Arduino interface board to sense the physical world, to control light, movement, and sound, and to create objects with interesting behavior. With *Beginning Arduino Programming*, you'll get the knowledge you need to master the fundamental aspects of writing code on the Arduino platform, even if you have never before written code. It will have you ready to take the next step: to explore new project ideas, new kinds of hardware, contribute back to the open source community, and even take on more programming languages.

150 TECHNICAL QUESTIONS AND ANSWERS FOR JOB INTERVIEW OFFSHORE DRILLING RIGS

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HOW TO BE PREPARED FOR JOB INTERVIEW OFFSHORE OIL & GAS PLATFORMS

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RECENT ADVANCES IN ROBOTIC SYSTEMS

BoD - Books on Demand This book brings together some recent advances and development in robotics. In 12 chapters, written by experts and researchers in respective fields, the book presents some up-to-date research ideas and findings in a wide range of robotics, including the design, modeling, control, learning, interaction, and navigation of robots. From an application perspective, the book covers UAVs, USVs, mobile robots, humanoid robots, graspers, and underwater robots. The unique text offers practical guidance to graduate students and researchers in research and applications in the field of robotics.

SOFT MAGNETIC COMPOSITES IN NOVEL DESIGNS OF ELECTRICAL TRACTION MACHINES

Nowadays, the manufacturing of electrical machines based on electrical steel laminations has been well established worldwide. Compared with the electrical steel, the soft magnetic composites (SMC) shows magnetic isotropy and lower eddy current losses. Thus, it becomes an important impulse promoting the development of new topologies of electrical machine. The application of SMC in the electrical traction machine for hybrid electrical vehicle or electrical vehicle has been researched in the work. This work was published by Saint Philip Street Press pursuant to a Creative Commons license permitting commercial use. All rights not granted by the work's license are retained by the author or authors.

SMALL ELECTRIC VEHICLES

AN INTERNATIONAL VIEW ON LIGHT THREE- AND FOUR-WHEELERS

Springer Nature This edited open access book gives a comprehensive overview of small and lightweight electric three- and four-wheel vehicles with an international scope. The present status of small electric vehicle (SEV) technologies, the market situation and main hindering factors for market success as well as options to attain a higher market share including new mobility concepts are highlighted. An increased usage of SEVs can have different impacts which are highlighted in the book in regard to sustainable transport, congestion, electric grid and transport-related potentials. To underline the effects these vehicles can have in urban areas or rural areas, several case studies are presented covering outcomes of pilot projects and studies in Europe. A study of the operation and usage in the Global South extends the scope to a global scale. Furthermore, several concept studies and vehicle concepts on the market give a more detailed overview and show the deployment in different applications.

RECENT ADVANCES IN MECHANICAL ENGINEERING

SELECT PROCEEDINGS OF RAME 2020

Springer Nature This book presents the select proceedings of the second International Conference on Recent Advances in Mechanical Engineering (RAME 2020). The topics covered include aerodynamics and fluid mechanics, automation, automotive engineering, composites, ceramics and polymers processing, computational mechanics, failure and fracture mechanics, friction, tribology and surface engineering, heating and ventilation, air conditioning system, industrial engineering, IC engines, turbomachinery and alternative fuels, machinability and formability of materials, mechanisms and machines, metrology and computer-aided inspection, micro- and nano-mechanics, modelling, simulation and optimization, product design and development, rapid manufacturing technologies and prototyping, solid mechanics and structural mechanics, thermodynamics and heat transfer, traditional and non-traditional machining processes, vibration and acoustics. The book also discusses various energy-efficient renewable and non-renewable resources and technologies, strategies and technologies for sustainable development and energy & environmental interaction. The book is a valuable reference for beginners, researchers, and professionals interested in sustainable construction and allied fields.

HANDBOOK OF SMALL ELECTRIC MOTORS

McGraw Hill Professional *A complete, definitive source for the design, manufacture, application, and testing of small electric motors less than ten horsepower *Gives motor design engineers, test technicians, and engineers top-to-bottom coverage of materials used in

motor manufacturing, as well as how-to advice on selecting the right design and assembly method *Includes a full section on motor applications

MASTERING BEAGLEBONE ROBOTICS

Packt Publishing Ltd If you want a simple guide to building complex robots, then this book is for you. You'll need some programming knowledge and experience working with mechanical systems.

INDUSTRIAL MOTION CONTROL

MOTOR SELECTION, DRIVES, CONTROLLER TUNING, APPLICATIONS

John Wiley & Sons Motion control is widely used in all types of industries including packaging, assembly, textile, paper, printing, food processing, wood products, machinery, electronics and semiconductor manufacturing. Industrial motion control applications use specialized equipment and require system design and integration. To design such systems, engineers need to be familiar with industrial motion control products; be able to bring together control theory, kinematics, dynamics, electronics, simulation, programming and machine design; apply interdisciplinary knowledge; and deal with practical application issues. The book is intended to be an introduction to the topic for senior level undergraduate mechanical and electrical engineering students. It should also be resource for system design engineers, mechanical engineers, electrical engineers, project managers, industrial engineers, manufacturing engineers, product managers, field engineers, and programmers in industry.

THE TRUTH ABOUT TESLA

THE MYTH OF THE LONE GENIUS IN THE HISTORY OF INNOVATION

Race Point Publishing Everything you think you know about Nikola Tesla is wrong. Nikola Tesla was one of the greatest electrical inventors who ever lived. For years, the engineering genius was relegated to relative obscurity, his contributions to humanity (we are told) obscured by a number of nineteenth-century inventors and industrialists who took credit for his work or stole his patents outright. In recent years, the historical record has been "corrected" and Tesla has been restored to his rightful place among historical luminaries like Thomas Edison, George Westinghouse, and Guglielmo Marconi. Most biographies repeat the familiar account of Tesla's life, including his invention of alternating current, his falling out with Edison, how he lost billions in patent royalties to Westinghouse, and his fight to prove that Marconi stole 13 of his patents to "invent" radio. But, what really happened? Consider this: Everything you

think you know about Nikola Tesla is wrong. Newly uncovered information proves that the popular account of Tesla's life is itself very flawed. In *The Truth About Tesla*, Christopher Cooper sets out to prove that the conventional story not only oversimplifies history, it denies credit to some of the true inventors behind many of the groundbreaking technologies now attributed to Tesla and perpetuates a misunderstanding about the process of innovation itself. Are you positive that Alexander Graham Bell invented the telephone? Are you sure the Wright Brothers were the first in flight? Think again! With a provocative foreward by Tesla biographer Marc. J. Seifer, *The Truth About Tesla* is one of the first books to set the record straight, tracing the origin of some of the greatest electrical inventions to a coterie of colorful characters that conventional history has all but forgotten.

OPTIMIZATION OF PHOTOVOLTAIC POWER SYSTEMS

MODELIZATION, SIMULATION AND CONTROL

Springer Science & Business Media Photovoltaic generation is one of the cleanest forms of energy conversion available. One of the advantages offered by solar energy is its potential to provide sustainable electricity in areas not served by the conventional power grid. *Optimisation of Photovoltaic Power Systems* details explicit modelling, control and optimisation of the most popular stand-alone applications such as pumping, power supply, and desalination. Each section is concluded by an example using the MATLAB® and Simulink® packages to help the reader understand and evaluate the performance of different photovoltaic systems. *Optimisation of Photovoltaic Power Systems* provides engineers, graduate and postgraduate students with the means to understand, assess and develop their own photovoltaic systems. As such, it is an essential tool for all those wishing to specialise in stand-alone photovoltaic systems. *Optimisation of Photovoltaic Power Systems* aims to enable all researchers in the field of electrical engineering to thoroughly understand the concepts of photovoltaic systems; find solutions to their problems; and choose the appropriate mathematical model for optimising photovoltaic energy.

ELECTRIC VEHICLE MACHINES AND DRIVES

DESIGN, ANALYSIS AND APPLICATION

John Wiley & Sons A timely comprehensive reference consolidates the research and development of electric vehicle machines and drives for electric and hybrid propulsions • Focuses on electric vehicle machines and drives • Covers the major technologies in the area including fundamental concepts and applications • Emphasis the design criteria, performance analyses and application examples or potentials of various motor drives and machine systems • Accompanying website includes the simulation models and outcomes as

supplementary material