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# Vtu Lecture Notes

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Emerging Research in Computing, Information, Communication and Applications  
Engineering Review  
Proceedings of SECON 2020  
Sustainable Technology and Advanced Computing in Electrical Engineering  
Recent Trends in Construction Technology and Management  
Proceedings of the 2nd International Symposium on Disaster Resilience and Sustainable Development  
Urban Science and Engineering  
Emerging Research in Electronics, Computer Science and Technology  
Lecture Notes for Linear Algebra  
Additional Mathematics - 1: Additional Mathematics - for VTU Lateral Entry Students  
Advances and Applications of Artificial Intelligence & Machine Learning  
Data Analytics and Learning  
Recent Advances in Civil Engineering for Sustainable Communities  
Futuristic Communication and Network Technologies  
Recent Advances in Civil Engineering  
Recent Advances in Mechanical Engineering  
Compiler Construction  
Educational Technology in Practice  
Intelligent Systems  
Advances in VLSI, Signal Processing, Power Electronics, IoT, Communication and Embedded Systems  
Research Advances in the Integration of Big Data and Smart Computing  
Mobile and Wireless Technology 2018  
ICT: Smart Systems and Technologies  
Innovative Design, Analysis and Development Practices in Aerospace and Automotive Engineering  
ICDSMLA 2021  
Evolutionary Computing and Mobile Sustainable Networks  
Proceeding of First Doctoral Symposium on Natural Computing Research  
Advances in Mechanical Engineering and Material Science  
Inventive Communication and Computational Technologies  
Information and Communication Technology for Competitive Strategies (ICTCS 2022)  
ICT Analysis and Applications  
Data Analytics and Learning  
Lex & Yacc  
Computational Intelligence in Machine Learning  
Sustainability Trends and Challenges in Civil Engineering  
Discrete Mathematical Structures  
Introduction to Machine Learning  
Fatigue, Durability, and Fracture Mechanics

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## JERAMIAH ANTONY

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*Emerging Research in Computing, Information, Communication and Applications* Springer Nature

This book presents the proceedings of 5th International and 20th National Conference on Machines and Mechanisms (iNaCoMM 2021) held at PDPM IIITDM Jabalpur during 9-11 December 2021. The conference was held in collaboration with the Association of Machines and Mechanisms (AMM) India and International Federation for the Promotion of Mechanism and Machine sciences (IFTToMM). Various topics covered in this book include kinematics and dynamics of machines, compliant mechanisms; gear, cams and power transmission systems; mechanisms and machines for rural, agricultural and industrial applications; mechanisms for space applications; mechanisms for energy harvesting; robotics and automation; human-centric robotics; soft robotics; man-machine system, mechatronics and micro-mechanisms; CAD and CAGD; control of machines; vibration of machines & rotor dynamics; acoustic and noise; tribology; condition monitoring and failure analysis; fault diagnosis and health monitoring; biomedical engineering; and composites and advanced materials. Given the contents, the book will be useful for researchers and professionals working in the various domains of mechanical engineering.

*Engineering Review* Springer Nature

This, conference proceeding, book contains invited articles and contributory papers from the 2nd International Symposium on Disaster Resilience and Sustainable Development, organized by Asian Institute of Technology, Thailand, on June 24-25, 2021. It includes contributions from researchers and practitioners working in the area of disaster mitigation and risk reduction for sustainable communities. The articles cover the topics such as on tools and techniques of hazard identifications, risk assessment, engineering innovations for hazard mitigation, and safe design of structures to the vulnerable systems. The content caters to research scholars, students, industry professionals, data analytics companies, re-insurance companies, government bodies and policymakers, who work in the field of hazard modeling and

disaster management.

*Proceedings of SECON 2020* Course Technology Ptr

This book features best selected research papers presented at the International Conference on Machine Learning, Internet of Things and Big Data (ICMIB 2020) held at Indira Gandhi Institute of Technology, Sarang, India, during September 2020. It comprises high-quality research work by academicians and industrial experts in the field of machine learning, mobile computing, natural language processing, fuzzy computing, green computing, human-computer interaction, information retrieval, intelligent control, data mining and knowledge discovery, evolutionary computing, IoT and applications in smart environments, smart health, smart city, wireless networks, big data, cloud computing, business intelligence, internet security, pattern recognition, predictive analytics applications in healthcare, sensor networks and social sensing and statistical analysis of search techniques. *Sustainable Technology and Advanced Computing in Electrical Engineering* Springer Nature

The book is a collection of papers presented at First Doctoral Symposium on Natural Computing Research (DSNCR 2020), held during 8 August 2020 in Pune, India. The book covers different topics of applied and natural computing methods having applications in physical sciences and engineering. The book focuses on computer vision and applications, soft computing, security for Internet of Things, security in heterogeneous networks, signal processing, intelligent transportation system, VLSI design and embedded systems, privacy and confidentiality, big data and cloud computing, bioinformatics and systems biology, remote healthcare, software security, mobile and pervasive computing, biometrics-based authentication, natural language processing, analysis and verification techniques, large scale networking, distributed systems, digital forensics, and human-computer interaction.

**Recent Trends in Construction Technology and Management** IGI Global

This book presents peer-reviewed contributions from the 5th International Conference on Mobile and Wireless Technology (ICMWT 2018), held June 25-27, 2018 in Hong Kong. This

conference provided researchers and practitioners from both academia and industry with a platform to keep them abreast of cutting-edge developments in the field. The book includes papers on mobile and wireless networks and their applications, the increasingly important security issues relating to mobile and wireless systems, data management, as well as the latest developments in mobile software development, and multimedia and wireless communications.

*Proceedings of the 2nd International Symposium on Disaster Resilience and Sustainable Development* Springer Nature

This book presents the select proceedings of the International Conference on Civil Engineering Trends and Challenges for Sustainability (CTCS 2020). The chapters discuss emerging and latest research and advances in sustainability in different areas of civil engineering, which aim to provide solutions to sustainable development. The contents are broadly divided into the following categories: construction technology and building materials, structural engineering, transportation and geotechnical engineering, environmental and water resources engineering, and RS-GIS applications. This book will be of potential interest to beginners, researchers, and professionals working in the area of sustainable civil engineering and related fields.

*Urban Science and Engineering* IAP

This volume comprises the select peer-reviewed proceedings of the International Conference on Advances and Applications of Artificial Intelligence and Machine Learning 2022 (ICAAAIML 2022). It aims to provide a comprehensive and broad-spectrum picture of state-of-the-art research and development in the areas of artificial intelligence, machine learning, deep learning, and their advanced applications in computer vision and blockchain. It also covers research in core concepts of computers, intelligent system design and deployment, real-time systems, WSN, sensors and sensor nodes, software engineering, image processing, and cloud computing. This volume will provide a valuable resource for those in academia and industry.

**Emerging Research in Electronics, Computer Science and Technology** Springer Nature

This book proposes new technologies and discusses future

solutions for ICT design infrastructures, as reflected in high-quality papers presented at the 5th International Conference on ICT for Sustainable Development (ICT4SD 2020), held in Goa, India, on 23–24 July 2020. The conference provided a valuable forum for cutting-edge research discussions among pioneering researchers, scientists, industrial engineers, and students from all around the world. Bringing together experts from different countries, the book explores a range of central issues from an international perspective.

*Lecture Notes for Linear Algebra* Springer Nature

This book presents selected papers presented during Fatigue Durability India 2019. The contents of this volume discuss advances in the field of fatigue, durability, and fracture, and cover mechanical failure and its applications. The chapters cover a wide spectrum of topics, including design, engineering, testing and computational evaluation of the components or systems for fatigue, durability, and fracture mechanics. The contents of this book will appeal not only to academic researchers, but also to design engineers, failure analysts, maintenance engineers, certification personnel, and R&D professionals involved in a wide variety of industries.

**Additional Mathematics - 1: Additional Mathematics - for VTU Lateral Entry Students** Springer Nature

Shows programmers how to use two UNIX utilities, lex and yacc, in program development. The second edition contains completely revised tutorial sections for novice users and reference sections for advanced users. This edition is twice the size of the first, has an expanded index, and covers Bison and Flex.

*Advances and Applications of Artificial Intelligence & Machine Learning* Springer Nature

The book presents the select proceedings of the 2nd International Conference on Sustainable Construction Technologies and Advancements in Civil Engineering (ScTACE 2021). This book discusses the latest developments and contributions towards sustainable construction technologies and advances in civil engineering. Various topics covered in this book are construction technologies, geotechnical engineering, transportation and traffic engineering, structural engineering, environmental engineering, remote sensing and GIS, geo-environmental engineering, water resources engineering and earthquake engineering. This book will be useful for students, researchers and professionals working in

the area of civil engineering.

*Data Analytics and Learning* Springer Nature

Designed for an introductory course, this text encapsulates the topics essential for a freshman course on compilers. The book provides a balanced coverage of both theoretical and practical aspects. The text helps the readers understand the process of compilation and proceeds to explain the design and construction of compilers in detail. The concepts are supported by a good number of compelling examples and exercises.

**Recent Advances in Civil Engineering for Sustainable Communities** Pearson Education India

The book presents the select proceedings of the Third International Conference on Emerging Research in Civil, Aeronautical and Mechanical Engineering (ERCAM 2021) and focuses on the broad themes of mechanical and aeronautical engineering. The book covers research developments in the field of materials, mechanics, structures, systems and sustainability. Various topics covered in this book include smart and multifunctional composite materials, nano materials, computational mechanics, solid mechanics, kinematics and dynamics, fatigue, fracture and life cycle analysis, smart structures-vibration and noise control, vibration, acoustics and condition monitoring, thermal/fluid systems and analysis. The book will be useful for students, researchers and professionals working in the various areas of mechanical engineering.

*Futuristic Communication and Network Technologies* Springer Nature

This book presents the select proceedings of the International Conference on Advances in Construction Technology and Management (ACTM 2021) and explores recent and innovative developments in all aspects of civil engineering. Advanced construction technologies such as 3D printing, intelligently built environment, use of artificial intelligence, smart structures, green buildings, advanced and engineered materials for producing green concrete, and many more such topics are covered in this book. The advanced management tools such as building information modeling, augmented reality, advanced task management software, and one of the most recent technological advancements are drones, which are changing the face of surveying and security are also explored. This book will be useful for researchers, academicians, and practitioners working in the

area of civil engineering and allied fields.

**Recent Advances in Civil Engineering** Springer Nature

This book presents new theories and working models in the area of data analytics and learning. The papers included in this volume were presented at the first International Conference on Data Analytics and Learning (DAL 2018), which was hosted by the Department of Studies in Computer Science, University of Mysore, India on 30–31 March 2018. The areas covered include pattern recognition, image processing, deep learning, computer vision, data analytics, machine learning, artificial intelligence, and intelligent systems. As such, the book offers a valuable resource for researchers and practitioners alike.

*Recent Advances in Mechanical Engineering* Springer Nature

This book comprises select proceedings of the First International Conference on Urban Science and Engineering. The focus of the conference was on the milieu of urban planning while applying technology which ensures better urban life, coupled with sensitivity to depleting natural resources and focus on sustainable development. The contents focus on sustainable infrastructure, mobility and planning, urban water and sanitization, green construction materials, optimization and innovation in structural design, and more. This book aims to provide up-to-date and authoritative knowledge from both industrial and academic worlds, sharing best practice in the field of urban science and engineering. This book is beneficial to students, researchers, and professionals working in the field of smart materials and sustainable development. ^

**Compiler Construction** Springer Nature

Wireless sensor networks have become an intricate and necessary addition to daily life by providing an energy efficient way to collect and monitor data while rerouting the information to a centralized location. As the application of these networks becomes more common, it becomes imperative to evaluate their effectiveness, as well as other opportunities for possible implementation in the future. The Handbook of Research on Wireless Sensor Network Trends, Technologies, and Applications provides inclusive coverage on the processing and applications of wireless communication, sensor networks, and mobile computing. Investigating emergent research and theoretical concepts in the area of wireless sensors and their applications to daily life, this handbook of research is a critical reference source for students,

researchers, engineers, scientists, and working professionals. *Educational Technology in Practice* Springer Nature Teaches students the mathematical foundations of computer science, including logic, Boolean algebra, basic graph theory, finite state machines, grammars and algorithms, and helps them understand mathematical reasoning for reading, comprehension and construction of mathematical arguments.

*Intelligent Systems* Springer Nature

This book comprises select peer-reviewed papers from the International Conference on VLSI, Signal Processing, Power Electronics, IoT, Communication and Embedded Systems

(VSPICE-2020). The book provides insights into various aspects of the emerging fields in the areas Electronics and Communication Engineering as a holistic approach. The various topics covered in this book include VLSI, embedded systems, signal processing, communication, power electronics and internet of things. This book mainly focuses on the most recent innovations, trends, concerns and practical challenges and their solutions. This book will be useful for academicians, professionals and researchers in the area of electronics and communications and electrical engineering.

**Advances in VLSI, Signal Processing, Power Electronics, IoT, Communication and Embedded Systems** Springer

This book gathers selected high-impact articles from the 3rd International Conference on Data Science, Machine Learning & Applications 2021. It highlights the latest developments in the areas of artificial intelligence, machine learning, soft computing, human-computer interaction and various data science and machine learning applications. It brings together scientists and researchers from different universities and industries around the world to showcase a broad range of perspectives, practices and technical expertise.

Best Sellers - Books :

- [To Kill A Mockingbird By Harper Lee](#)
- [Bluey And Bingo's Fancy Restaurant Cookbook: Yummy Recipes, For Real Life](#)
- [Demon Copperhead: A Pulitzer Prize Winner](#)
- [Girl In Pieces](#)
- [Stop Overthinking: 23 Techniques To Relieve Stress, Stop Negative Spirals, Declutter Your Mind, And Focus On The Present \(the Path To Calm\) By Nick Trenton](#)
- [It Ends With Us: A Novel \(1\) By Colleen Hoover](#)
- [The Boy, The Mole, The Fox And The Horse By Charlie Mackesy](#)
- [The Seven Husbands Of Evelyn Hugo: A Novel By Taylor Jenkins Reid](#)
- [Hunting Adeline \(cat And Mouse Duet\)](#)
- [Regretting You](#)