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DUK Annual Athletics Meet

DIGITAL UNIVERSITY KERALA

Curating a responsible digital world

2024 NEWSLETTER

KERALA UNIVERSITY OF DIGITAL SCIENCES, INNOVATION AND TECHNOLOGY

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DIGITAL UNIVERSITY KERALA
Curating a responsible digital world

to lead us in innovation.....

Dr. Ciza Thomas joins as Vice Chancellor

Dr. Ciza Thomas is a distinguished academic leader and researcher, currently serving as the Vice Chancellor of Kerala University of Digital Sciences, Innovation and Technology. She has held several key positions, including the Vice Chancellor of APJ Abdul Kalam Technological University, Director (In-charge), Senior Joint Director of the Directorate of Technical Education, Government of Kerala, and Principal of Government Engineering College, Barton Hill, Trivandrum. She has also served as a Professor and Head of various departments at renowned institutions like the College of Engineering, Trivandrum, and as Professor and Dean of Karunya University.

Dr. Ciza Thomas
Vice Chancellor

Dr. Ciza Thomas has a remarkable academic background with B.Tech and M.Tech from the College of Engineering, Trivandrum, and a Ph.D. from the Indian Institute of Science, Bangalore. She has been recognized for her contributions in the field of education and research, receiving multiple awards, including the e-learning IT award of Kerala State (2014), Catholicate Best Scientist Award (2023). Her research interests span network security, sensor fusion, and explainable AI, with numerous international publications and collaborations, including work with prestigious institutions like Carnegie Mellon University, the University of Waterloo, and the Indian Institute of Science.

She is also deeply involved in the academic administration, having contributed to curriculum development, technical committees, and various government projects. She is a passionate advocate for e-learning and institutional innovation, having implemented the Kbase project for all engineering colleges in Kerala. Additionally, she serves as a research supervisor and is actively involved in guiding Ph.D. scholars.

A respected figure in the academic and research communities, she is known for her leadership roles in organizing international conferences, serving on editorial boards, and being an active resource person for defence and research organizations. Her extensive career showcases a commitment to advancing higher education and technological innovation.

WISE Stall at the HUDDLE Global 2024

The stall representing Digital University Kerala's WISE (Women Incubation Startups and Entrepreneurship) project was officially inaugurated on 28th November 2024 at the **'HUDDLE Global 2024'** industrial entrepreneurship fair, held at the Leela Raviz in Kovalam, Thiruvananthapuram. This prestigious event, led by Kerala Startup Mission, offered a platform for startups and budding entrepreneurs to showcase their innovations and ventures.

The inauguration of the WISE Stall was done by Dr. A. Mujeeb, the Honourable Registrar of DUK.

The event held from 28th to 30th November 2024, featured inspiring presentations from emerging entrepreneurs, enriching panel discussions with industry leaders, talks by venture capitalists and government delegates, etc. The sessions were not only valuable learning experiences but also provided excellent networking opportunities for the startups, helping them forge connections and grow further.

Ventures floated by women entrepreneurs have also been generating significant interest at the event. Leading the fray were the startups incubated under Digital University Kerala's; Women Incubation, Start-ups and Entrepreneurship (WISE) scheme, aimed at promoting a women entrepreneurship ecosystem.

Project Co-ordinator of 'WISE' Dr. Elizabeth Shirly, WISE Business Developer Ms. Dyana B Rose, Women Entrepreneurs under WISE Project and Staff working on various projects under Digital University Kerala participated in the three day event. The WISE project and the startups under WISE greatly benefited from this platform; connecting with potential collaborators, investors and partners.


DIGITAL UNIVERSITY KERALA


DIGITAL UNIVERSITY KERALA

KITTS, Digital Varsity ink MoU to Launch Tech Courses in Tourism

Tie-up aims to empower stakeholders in cutting-edge technologies

Kerala Institute of Tourism and Travel Studies (KITTS), the HR development wing of State Tourism Department, today signed a Memorandum of Understanding (MoU) with Digital University Kerala (DUK) to introduce innovative, technology-integrated programmes in tourism and hospitality sector.

Tourism Minister Shri P A Mohamed Riyas, who is also the Chairman of KITTS, exchanged the MoU with Dr. Saji Gopinath, Vice Chancellor of DUK. The MoU was signed by Dr. Dileep M R, Director, KITTS and Prof. Mujeeb, Registrar of DUK.

Dr. B Rajendran, Principal, KITTS; Dr. Hari Krishnan, Coordinator, KITTS; DUK faculty Prof. Santhosh Kurup and Dr. Sini V Pillai were also present on the occasion.

Shri P A Mohamed Riyas said the MoU is part of the mission of the government to upgrade the activities of KITTS on par with global standard.

Significantly, the tie-up comes in the backdrop of Kerala Tourism increasingly leveraging cutting-edge digital tools and media in all verticals and planning to set up a technology hub-cum-incubator to mould startups exclusively catering to tourism.

The strategic collaboration aims to equip students, industry professionals, and government officials with cutting-edge skills to keep pace with the rapidly evolving digital landscape across the globe. It would help stakeholders of tourism industry attain competitiveness since they are relying largely on digital platforms from destination research to booking and trip planning.

The new courses being offered through this MoU will focus on key technology areas such as artificial intelligence (AI), cybersecurity, data analytics, digital and social media marketing, and management systems.
Besides, these programmes will serve as additional certifications or diploma courses for KITTS students, who can enhance their prowess in digital technologies, and it will also create opportunities for their placements.
Industry professionals will benefit from capacity-building programmes designed to hone their expertise in tech-driven management for the tourism and hospitality sectors.

The initiative also includes specialized courses for officials of the Department of Tourism, District Tourism Promotions Councils (DTPCs), and other related public sector agencies, aimed at improving proficiency in technology tools and cybersecurity measures. The tie-up will empower tourism stakeholders with advanced digital solutions and enhance the overall efficiency, resilience, and future-readiness of Kerala's tourism industry.

Thiruvananthapuram-based KITTS, an affiliated member of United Nations World Tourism Organisation (UNWTO) and an authorised learning centre of IATA (International Air Transport Association), offers over 10 different industry-based courses including MBA and conducts free training programmes for the State and Central governments.

Centre for Digital Transformation & Innovation organized Advanced IT training program for the Department of Archaeology, Govt. of Kerala

The Centre for Digital Transformation & Innovation (CDTI), a center of excellence at Digital University Kerala, organized an "Advanced IT" training program for the Department of Archaeology, Govt. of Kerala from November 25th to 29th, 2024. Building on the foundation of a basic IT training program held in the previous year, this initiative aimed to further enhance participants' digital capabilities. The program opened with an inspiring welcome address by Ms. Shabana N.D, Chief Administrative Officer of the IIITM-K, who highlighted the transformative potential of technology in cultural heritage preservation.

Over the five days, expert trainers delivered sessions on topics such as advanced data management, digital communication tools, AI applications like ChatGPT, government ICT initiatives, and leveraging social media for professional growth. The training also included practical demonstrations and group activities that encouraged participants to explore innovative approaches to their work. Practical sessions on e-Office and other relevant tools were also included.

The training concluded with a valedictory session on November 29th, 2024, marked by a welcome address by Dr. Sini V Pillai, Assistant Professor at DUK. The Chief Guest, Dr. A. Mujeeb, Registrar of DUK, delivered a keynote address, emphasizing the importance of applying newly acquired skills in both personal and professional contexts. He also presented certificates of participation and mementos to the attendees and trainers, recognizing their dedication and contributions to the program's success. Feedback from attendees reflected the program's effectiveness in bridging their knowledge gaps and providing actionable insights into leveraging IT solutions in their professional roles. The training successfully equipped attendees with enhanced digital skills and strategies for integrating technology into their professional roles.

Human-Centric Artificial Intelligence: Building for Deep Impact

The Research Office DUK organized an insightful talk with Dr. Sooraj Krishna, a globally acclaimed Human-Centric AI Researcher. The talk was titled "Human-Centric Artificial Intelligence: Building for Deep Impact". The talk explored AI designed with ethical and human-focused principles, with the possible transformative power it could bring forth. The insights of Dr. Krishna were a mix of cutting-edge research, real-world applications, and a vision that AI could really serve humanity.

This session offered an interactive Q&A period where students and faculty had the opportunity to question Dr. Krishna directly. Some questions included challenges in ethical AI implementation and career pathways for industries with AI drives. The responses from Dr. Krishna underlined critical thinking, adaptability, and the importance of a sound ethical foundation in AI development.

The event culminated in a unified acknowledgment of the transformative capacity inherent in human-centric artificial intelligence, underlining the critical importance of accessibility, trust, and ethical incorporation in the development of AI systems. Notable speakers, including Dr. Sooraj Krishna, illuminated the necessity of reconciling technological progress with societal obstacles, illustrating how AI can effectively tackle real-world problems while prioritizing a user-centered framework. The wide range of topics to be studied, from communicative actions of educational agents through the integration of artificial intelligence in sustainable agricultural practices, highlights how interdisciplinary collaboration is needed in bringing solutions that are real-life relevant.

The discussions emphasized the importance of innovation that is grounded in ethics and responsibility, thereby propelling the participants to consider transparency and inclusiveness while working on their projects. Furthermore, the end of the workshop reiterated the importance of maintaining a continued conversation between researchers, practitioners, and the wider society to ensure that AI development moves in line with human values.

Rural Immersion Program for MBA Students

The MBA students at DUK had a Rural Immersion Program in Pondicherry from 2nd-7th November 2024, which provided an insightful exploration of the region's micro-enterprises, cultural heritage, and sustainable practices.

The Rural Immersion Program was conducted to foster exposure and understanding of these grass-roots ventures among the Digital University Kerala students. The project was conducted in Pondicherry, and the program focused on micro-enterprises' activities and what methods could help them grow. The program aimed to understand the dynamics of rural businesses and identify strategies to empower them for long-term growth. Key highlights include visits to agriculture-focused initiatives like the M.S. Swaminathan Research Foundation, artisan hubs in Auroville, and community-based enterprises such as clay statue manufacturers and coconut craft shops. Dr. Sini V. Pillai accompanied the students, helping them identify how the resilience and creativity of local communities can be taken as an opportunity while highlighting challenges such as market access, digital literacy, and resource constraints. The study identified opportunities for enhancing economic growth through qualitative methodologies like field observations, interviews, and SWOT analysis. Recommendations emphasize the importance of e-commerce integration, skill development, eco-tourism promotion, and infrastructural support to create sustainable livelihoods while preserving cultural heritage.

World Diabetes Day Walkathon - A Resounding Success!

On World Diabetes Day, Abhin A, MBA Student represented DUK in a highly successful walkathon, aimed at raising awareness about diabetes and promoting the importance of fitness in managing the condition. The event began bright and early at 6 AM from the iconic Kanakakunnu Palace, starting with an energizing Zumba session, which set an enthusiastic and positive tone for the day. The session emphasized the significance of physical activity in managing diabetes and overall health. The program was inaugurated by Cine Actor Sudheer Karamana, and a wonderful speech was delivered by Dr. Jayram, highlighting the crucial role of fitness and awareness in controlling diabetes. Afterward, participants walked along a scenic route toward Precise Eye Care Hospital, combining fun, fitness, and purpose, while raising awareness about the impact of diabetes and the importance of an active lifestyle. It was an inspiring event that brought the community together, with everyone engaged in the cause. At the end of the walkathon, certificates of participation were awarded, and refreshments were provided to help participants rehydrate and celebrate their accomplishment.

Seminar on Soft Skill Development

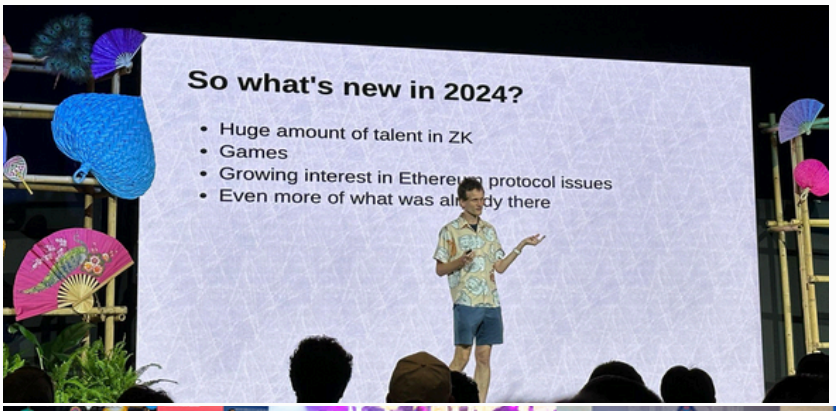
KSAAC conducted a seminar on November 6th, 2024, for PMAJAY students, focusing on the theme “The Importance of Soft Skill Development.” The session was facilitated by Ms. Mary Suresh, a distinguished communication and soft skills trainer with extensive experience in equipping individuals with essential professional competencies.

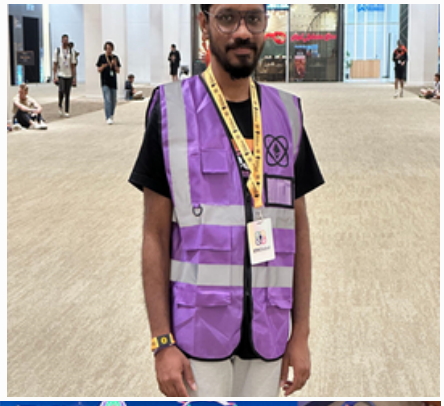
The two-hour session emphasized the development of communication and presentation skills, critical for achieving personal and professional success. The interactive format encouraged active participation, enabling students to ask questions and engage in activities that underscored the significance of soft skills in today’s competitive landscape.

Kerala Blockchain Academy Shines at Devcon 7

The Ethereum Foundation's Devcon 7, held from November 12th–15th, 2024, at the Queen Sirikit National Convention Center (QSNCC) in Bangkok, Thailand, marked a milestone in global blockchain innovation. This prestigious event attracted 12,500 attendees from 130 countries at the venue. Sessions from renowned speakers like Aya Miyaguchi, Vitalik Buterin, Roger Dingledine, and Bruno Macaes attracted the community.

Dr. Adarsh S (Sr. Scientist), Franklin John (Research Scientist & Manager-Training), Sakeer M (Research Scientist) A, Mobin Mohanan (Research & Development Engineer), and Dr. Arya V N (Jr. Content Writer) represented Kerala Blockchain Academy (KBA). Mobin Mohanan also took on the roles of ETHGlobal Mentor and Dev Scholar, adding further prestige to KBA's involvement. DC 7 focused on the promotion of decentralised protocols, tools, and culture, fostering collaboration and innovation. Josh Stark, Ethereum Foundation Leadership representing the Ethereum Foundation, acknowledged the contributions of KBA to the Ethereum ecosystem during the opening ceremony underscoring KBA's global significance.





KBA Hosts Insightful Session on Digital Identity & Verifiable Credentials

As part of the Institution's Innovation Council (IIC), Kerala Blockchain Academy (KBA) conducted an engaging session on "Digital Identity & Verifiable Credentials" on 19th November 2024. The session was led by Danny Wong, Enterprise Architect & Head of Global Blockchain at Allianz Technology, who brought profound expertise and industry insights to the discussion.

The transformative potential of blockchain in enhancing trust and identity in the digital era was emphasised. By pinpointing various practical use cases, the session highlighted the potential of verifiable credentials in improving privacy and security. Real-world applications in identity management were discussed alongside the challenges and opportunities in implementing digital credentials. The strategies employed at Allianz Technology captivated the audience. The speaker created a space for innovative thinking and the discussions followed by the session addressed the significance of blockchain in shaping the future of digital identity.

Leadership Program

Dr. Sinnu Susan Thomas attended the Nurturing Future Leadership Program, under the Aegis of Malaviya Mission teacher Training Program at IIT Kanpur during 19th-23rd November 2024.

23 faculty members from various institutes all across the country participated in this five-day program which was fully aligned with the 'National Education Policy 2020's emphasis on holistic development, institutional autonomy, and innovation, empowering participants to become leaders in academic institutions.

Constitution Day

As part of the Constitution Day celebrations on 27th November 2024, the Social Engagement Center (SEC), in association with NSS and Unnat Bharat Abhiyan, organized a thought-provoking group discussion on the topic, "Uniform Civil Code: Essential for Equality or a Threat to Diversity?". The discussion aimed to help students analyze the delicate balance between uniformity and diversity within a democratic framework.

This event was not just another policy discussion; it was an opportunity for students to delve into the complex issue of how to balance equality with cultural diversity. Far from being a dull lecture, it was a dynamic platform where students could actively engage, share their perspectives, challenge each other's views, and learn from one another.

What truly made the discussion special was the diversity of voices that contributed to it. Participants included law graduates, English majors, and history enthusiasts, each offering their unique insights. Some students passionately argued for legal uniformity, while others emphasized the importance of respecting cultural differences. This range of viewpoints enriched the discussion and fostered a deeper understanding of the topic.

The event truly embodied the spirit of our Constitution—creating space for critical thinking, open dialogue, and mutual respect. It wasn't about winning an argument; it was about listening, learning, and growing together.

The event was successfully organized by second-year MBA students Vedaprasad, Noufal Ashique, and Megha, under the guidance of Fousiya. Their teamwork and dedication were instrumental in ensuring the event's success, providing valuable learning experiences for the participants.

Hardware Workshop for ATL Students - PM Shri KV Pallipuram

The Institution's Innovation Council and Innovation Club DUK organized a one day hardware workshop for the PM Shri KV Pallipuram students on 27th November 2024.

Inauguration of IGU at Schools : Indigenously Produced First Electronic Hardware Product from DUK

Inauguration of IGU by Minister of Sports Shri. V. Abdurahiman at Govt. New LPS Kallimel, Minister for Higher Education and Social Justice of Kerala, Prof. R Bindhu at Govt. LPS Nadavaramba, Minister for Public Works and Tourism, Shri P. A. Mohammed Riyas at GMLPS Karuvanthuruthi, MLA Shri. Adv. K. Premkumar at Govt. LPS Elambulassery, MLA Shri. K N Unnikrishnan at Govt. LPS Palliport, MLA , Shri. C. H. Kunhambu at GLPS Periya, MLA Shri. I.C. Balakrishnan at GLPS Andoor.

The integrated gaming unit (IGU) is conceived at the thingQbator facility with the dedicated efforts of a team of students, Mr. Adithya Vishnu and Mr. Alfas Hakeem, led by Mr.Sarath.SM, Innovation Officer and Mr. Lal Prakash, Senior Software Developer of DUK. This is the first electronic hardware product to be indigenously developed and successfully commercialized from the Digital University.

IGU is an integrated digital solution which will assess the performance of students undergoing training on various sports and games. This is deployed in 30 schools across the state as a pilot project.The project is mentored by Prof. Asharaf S, Dean Academic and Prof Manoj Kumar T K , Dean Research of Digital University.

Third Annual Athletics Meet

The Third Annual Athletics Meet of our institution was successfully held on November 13th, 2024, at LNCPE Ground Karyavattom. The event showcased exceptional talent, teamwork, and sportsmanship among our students.

The inaugural function commenced at 9:45 a.m. with our esteemed chief guest, Shri S. Gopinath IPS (Retd.), formerly Inspector General of Police, Kerala. The program began with a march Past by four houses: Blue House, Green House, Red House, and Yellow and Salute Reception by our Chief Guest after that National Anthem, Welcome Speech was delivered by Prof Md Meraj Uddin, Chair of Student Affairs, Flag Hosting and Presidential Address by Shri Madhavan Nampier, Chairman of IIITMK, Inaugural Address by Shri S. Gopinath IPS (Retd.) and Felicitation delivered by Prof Santhosh Kurup, Oath Ceremony by Abraham S, Secretary of Sports Club. DUK. Sports Club Secretary Received the torch from beloved chief guest and hand it over to other captains of all four houses after that Vote of Thanks by Sohan J, General Secretary of Student Council.

The program concluded at 4:00 p.m. with the distribution of medals. The event was a huge success, promoting sportsmanship, teamwork, and physical fitness among our students.


RED OX


BLUE BUZZARDS


KUDSIT
KUDSIT
1


1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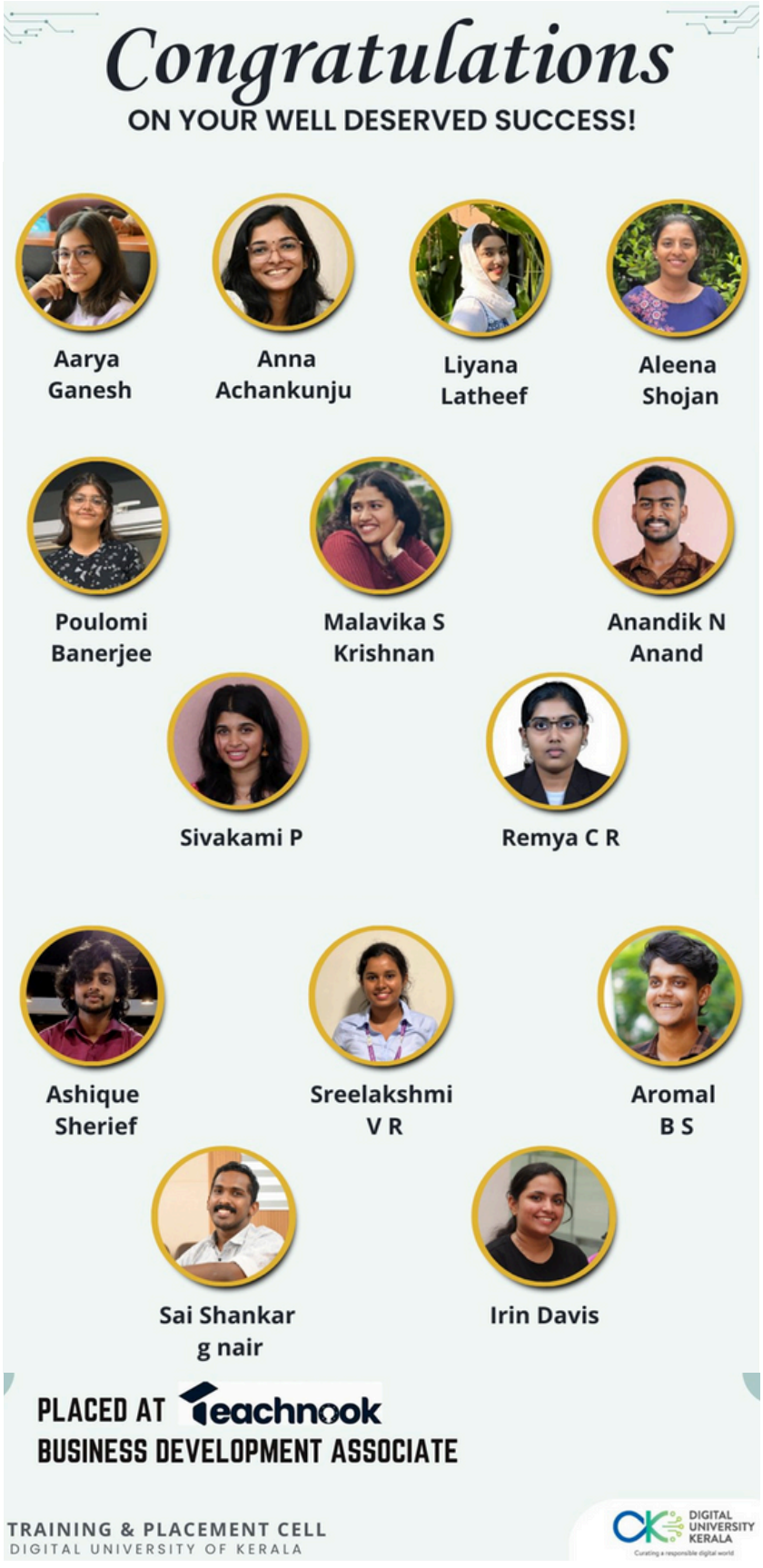
3
2

PLACEMENT HIGHLIGHTS

2023-2025 Batch

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5.5 LPA
Well done! Your Placement is a testament to your perseverance and commitment.


Congratulations!
Placements - 2023-2025
Congratulations on your placement at H&R Block!
Wishing you great success in this exciting new chapter!
H&R BLOCK
Himanshu
Sarath Krishnan A
Yash Samson Lyall

OUR STUDENT'S PLACEMENT

P. G. Diploma in Blockchain

Congratulations

Neethu M
Innovative Trainee-Blockchain Intern (Hyperledger)
SimplyFI

Rahul C T
Junior Software Engineer
Xpeditions | Exploring Innovations Expanding Relations
&
Blockchain Intern (Hyperledger)
SimplyFI

Anandu Raveendran
Trainee-Frontend Developer
viaDOTS
Saaksan Technologies Private Limited

Akhil Kailas
Junior Software Engineer
Xpeditions | Exploring Innovations Expanding Relations

Ajay Thampi K
Junior BlockChain Developer
spericorn

Maneesha Raj
Intern
Lambdazen India Pvt Ltd

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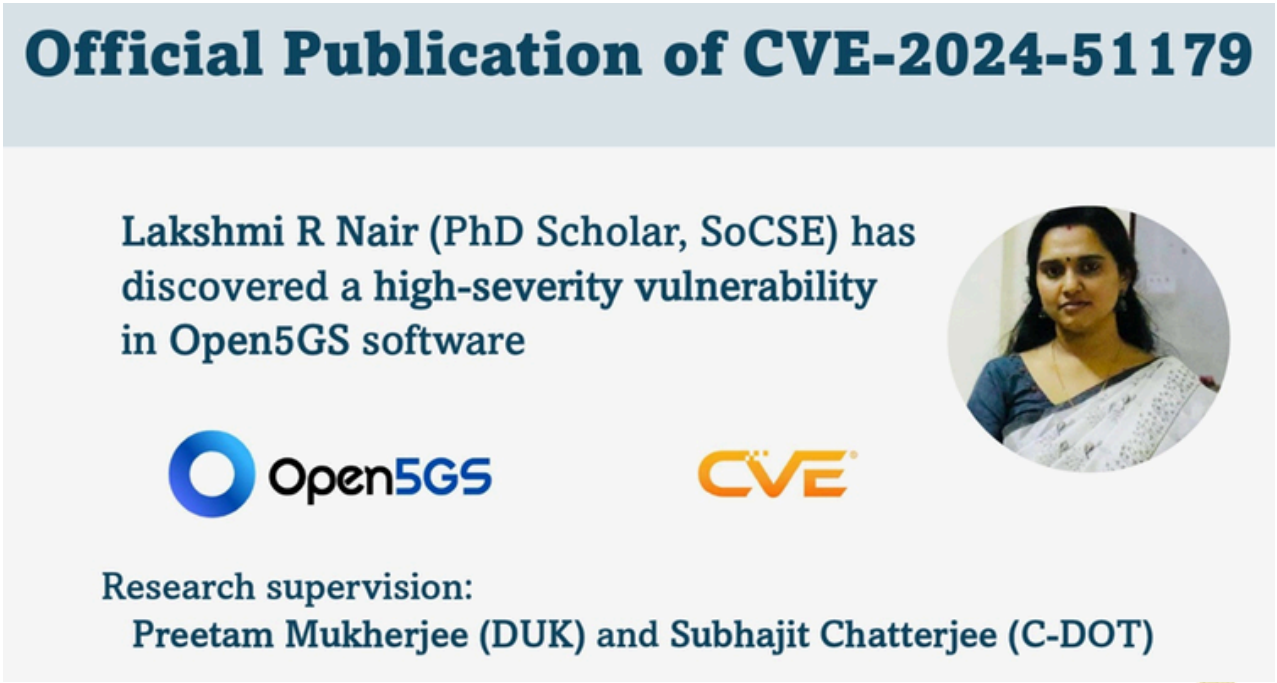
Achievements

Official Publication of CVE-2024-51179

Mrs. Lakshmi R Nair (PhD Scholar, SOCSE) has discovered a high severity vulnerability in Open5GS software. This significant discovery was made under the supervision of Dr. Preetam Mukherjee (DUK) and Mr. Subhajit Chatterjee (C-DOT). The published CVE can be accessed at https://www.cve.org/CVERecord?id=CVE-2024-51179



Project Completion

Dr. Sinnu Susan Thomas has completed the SERB Start-up Research Grant 2021 "Causal Optimal Transport for Summarizing the Unpaired Videos" with Very Good Grade.

Award

Mr. Harikrishnan S (MSc Ecology (2021-23), a PhD scholar working with Dr. I. Suresh, has been awarded the INSPIRE Fellowship (DST) to pursue his doctoral studies at the School of Informatics.

IEEE R10 ACEI Pitch Deck Competition

Dr. Elangovan K secured the second runners-up position in the IEEE R10 ACEI Pitch Deck Competition.

DUK Shines at Allianz Tech Championship 2024!

Out of 50 winners across India in the Allianz Tech Championship 2024, 3 proud champions emerged from DUK.
Muhammad Haroon, Kurian Elias, and Dhanush BR from the School of Digital Sciences have secured the prestigious Allianz Tech Scholarship.

As part of this program, these talented students receive:
- Financial support of €3,000 to cover academic costs.
- Exclusive mentoring and networking opportunities with global tech leaders.
- Membership in the AZ Tech Scholar Global Community, connecting them with innovative minds worldwide.

Publications

- Keerthana SH, P Radhakrishnan and A Mujeeb, “Exploring temporal dynamics of ice melting through dynamic laser speckle imaging”, Engineering Research Express 6 (2024) 045426 https://doi.org/10.1088/2631-8695/ad9547
- A. K. Sooraj Viswam, Sinoy Johnson, Sayuj Koyyappurath, A. Mujeeb “Non-invasive laser bio-speckle technique for the study of optical irradiation on plant leaf lamina: Application to monitor salicylic acid modulated response in Zamioculcas zamiifolia”, Biochemical and Biophysical Research Communications 739 (2024) 150955 https://doi.org/10.1016/j.bbrc.2024.150955
- S. H. Keerthana, A. Mujeeb and P. Radhakrishnan, "Dynamic Laser Speckle Imaging as a Non -destructive Method for Tracking the Dynamics in Slow Curing Epoxy Resin," Russian Journal of Non-destructive Testing, vol. 60, no. 3, pp. 335-344, 2024. DOI:10.1134/S106183092360123X
- B. P. Pathrose, V. P. N. Nampoori, and A. Mujeeb, "Experimental study of solvent effect on the heat transfer characteristics of 4-[(4-aminophenyl) -(4-imino-1-cyclohexa-2,5-dienylidene) methyl] aniline hydrochloride–A concentration-based study," Modern Electronic Materials, vol. 10, no. 1, pp. 29-36, 2024. https://doi.org/10.3897/j.moem.10.1.116991
- P. Mary and A. Mujeeb, "A machine learning framework for the prediction of antibacterial capacity of silver nanoparticles," Nano Express, vol. 5, no. 2, pp. 025022, 2024. https://doi.org/10.1088/2632-959X/ad4c80
- Ravi Prakash, Anjana Prabhakar (2025), “Leveraging Deep Learning for Unobtrusive User Authentication: A Hybrid Approach”, 10th IEEE Symposium on Computational Intelligence in Security, Defence and Biometrics, SCISDB 2025.
- PV Matonkar, V Gopakumar, “Beyond Books: librarians as gatekeepers in the fight against plagiarism,” College Libraries 39 (2), 54-62, 2024. https://collegelibraries.in/index.php/CL/article/view/157

Conference Publication

- Blessy Thomas, Sabu M. Thampi, Preetam Mukherjee, Identifying Insecure Network Configurations Through Attack Modeling and Explainable AI, Information Systems Security. ICISS 2024. Lecture Notes in Computer Science, vol 15416. Springer, Cham. https://doi.org/10.1007/978-3-031-80020-7_11

Book Chapter Published

Balasubramaniam, S., Vijesh Joe, C., Prasanth, A., & Kumar, K. S. (2025). Computer Vision Systems in Livestock Farming, Poultry Farming, and Fish Farming: Applications, Use Cases, and Research Directions. Computer Vision in Smart Agriculture and Crop Management, 221-258.

Chapter 10

Computer Vision Systems in Livestock Farming, Poultry Farming, and Fish Farming

Applications, Use Cases, and Research Directions

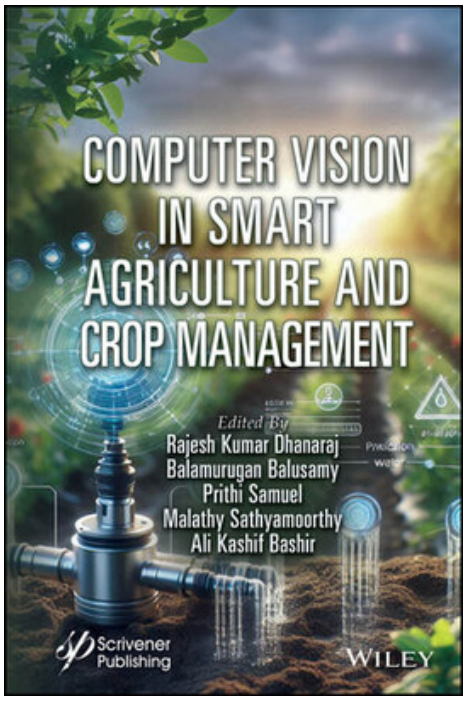
S. Balasubramaniam, C. Vijesh Joe, A. Prasanth, K. Satheesh Kumar

Book Editor(s):Rajesh Kumar Dhanaraj, Balamurugan Balusamy, Prithi Samuel, Malathy Sathyamoorthy, Ali Kashif Bashir

First published: 14 November 2024 | https://doi.org/10.1002/9781394186686.ch10

Summary

Agriculture provides human facilities through raising plants and livestock. Agriculture fuels a sedentary lifestyle. Smart agriculture is new, and a number of farmers do not know what it means. The field of artificial intelligence (AI) known as "computer vision" analyzes visual data such as digital pictures, movies, and other visual inputs to form conclusions and recommendations. Computer vision is revolutionizing agriculture. Livestock, poultry, and fish farms should supply foods like meat, milk, eggs, and offal as 30% of the daily protein requirement. Thus, we require a precise and timely animal count. This technology makes cattle tracking and counting easy. Assessing and managing poultry welfare requires monitoring.



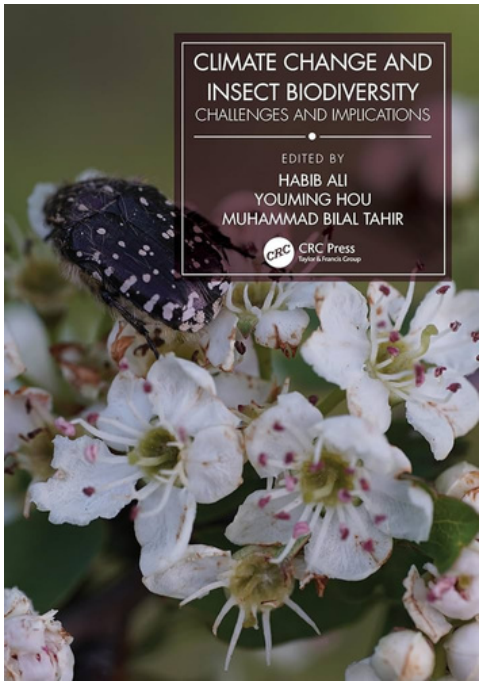
More Details: https://doi.org/10.1002/9781394186686.ch10

New Additions to the Knowledge Centre Collection

Climate Change and Insect Biodiversity Challenges and Implications

Edited By Habib Ali, Youming Hou, Muhammad Bilal Tahir

This up-to-date reference book discusses the effects of climate change on the biodiversity of insect pests. The changing climate and agricultural intensification practices impact negatively on insect biodiversity. The book explains the significance of insect pests for evaluating climatic impacts on a wide range of ecological systems. It covers the effect of climate change on pollinators and household and agricultural insect pests. It explains how climate-smart agriculture can enhance productivity and food security.



FEATURES

- Reviews the effects of climate change on plant-insect interactions
- Includes topics such as insect biodiversity informatics and conservation
- Discusses food security, pest management, and beneficial and social insects
- Covers topics such as precision agriculture and climate-smart agriculture
- Provides insights on the relation between agriculture intensification and insect biodiversity

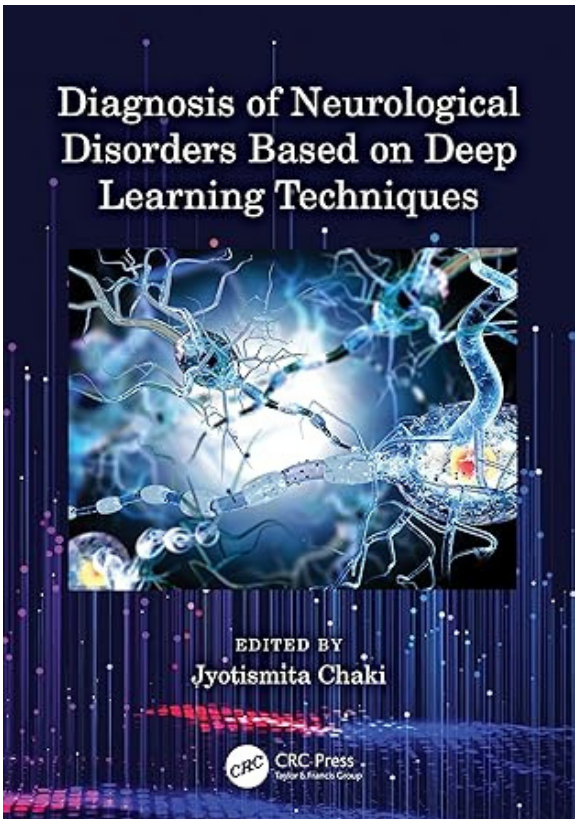
This book is meant for scientists, researchers, and students working in the fields of agriculture, entomology, ecology, plant science, environmental biology, and biotechnology.

Source: Publisher

Ali, Habib (2023) *Climate Change and Insect Biodiversity Challenges and Implications*. CRC Press.

Diagnosis of Neurological Disorders Based on Deep Learning Techniques

by Jyotismita Chaki



This book is based on deep learning approaches used for the diagnosis of neurological disorders, including basics of deep learning algorithms using diagrams, data tables, and practical examples, for diagnosis of neurodegenerative and neurodevelopmental disorders. It includes application of feed-forward neural networks, deep generative models, convolutional neural networks, graph convolutional networks, and recurrent neural networks in the field of diagnosis of neurological disorders. Along with this, data preprocessing including scaling, correction, trimming, and normalization is also included.

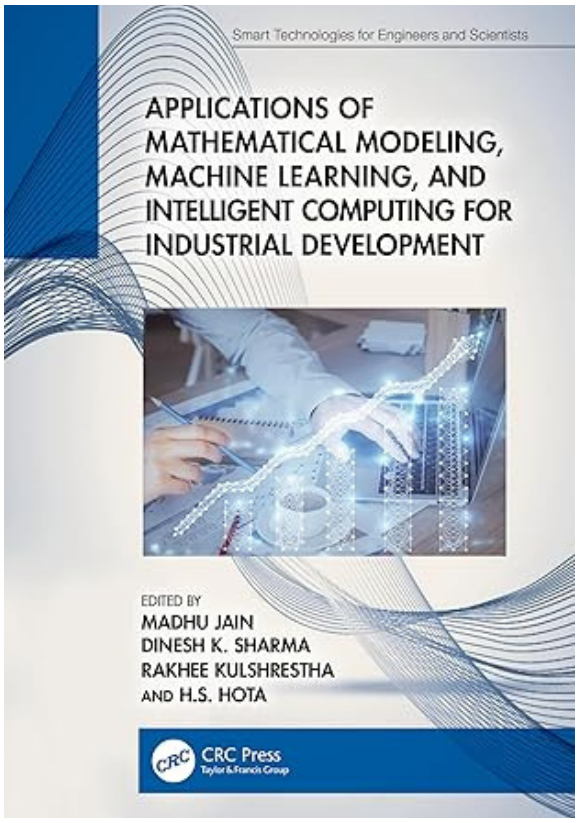
Offers a detailed description of the deep learning approaches used for the diagnosis of neurological disorders.
Demonstrates concepts of deep learning algorithms using diagrams, data tables, and examples for the diagnosis of neurodegenerative, neurodevelopmental, and psychiatric disorders.
Helps build, train, and deploy different types of deep architectures for diagnosis.
Explores data preprocessing techniques involved in diagnosis.
Includes real-time case studies and examples.
This book is aimed at graduate students and researchers in biomedical imaging and machine learning.

Source: Publisher

Chaki, Jyotismita (2023) *Diagnosis of Neurological Disorders Based on Deep Learning Techniques* . CRC Press.

Applications of Mathematical Modeling, Machine Learning, and Intelligent Computing for Industrial Development

By Madhu Jain, Dinesh K Sharma, Rakhee Kulshrestha, H.S. Hota



The text focuses on mathematical modeling and applications of advanced techniques of machine learning, and artificial intelligence, including artificial neural networks, evolutionary computing, data mining, and fuzzy systems to solve performance and design issues more precisely. Intelligent computing encompasses technologies, algorithms, and models in providing effective and efficient solutions to a wide range of problems, including the airport's intelligent safety system. It will serve as an ideal reference text for senior undergraduate, graduate students, and academic researchers in fields that include industrial engineering, manufacturing engineering, computer engineering, and mathematics.

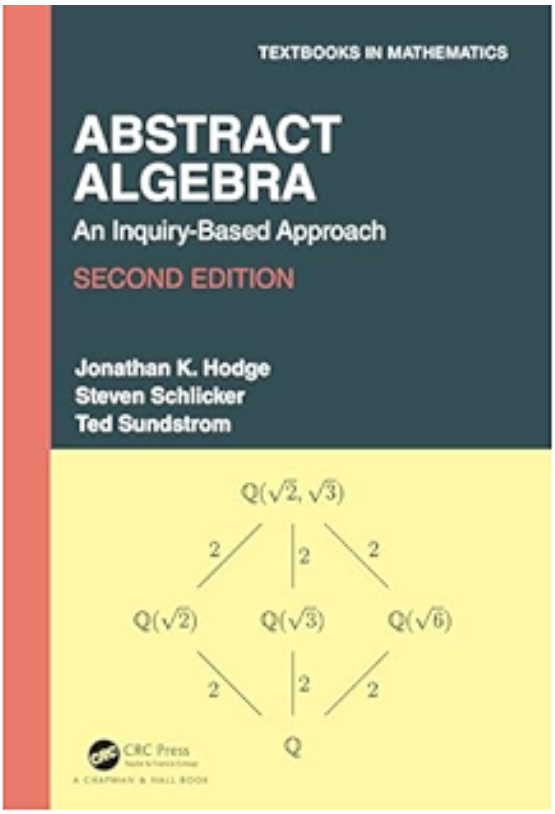
The text presents emerging real-life topics on mathematical models, machine learning, and intelligent computing in a single volume. It will serve as an ideal text for senior undergraduate students, graduate students, and researchers in diverse fields, including industrial and manufacturing engineering, computer engineering, and mathematics.

Source :Publisher

Jain, Madhu (2023) *Applications of Mathematical Modeling, Machine Learning, and Intelligent Computing for Industrial Development.* CRC Press.

Abstract Algebra: An Inquiry-Based Approach

By Jonathan K. Hodge, Steven Schlicker, Ted Sundstrom



Abstract Algebra: An Inquiry-Based Approach, Second Edition not only teaches abstract algebra, but also provides a deeper understanding of what mathematics is, how it is done, and how mathematicians think.

The second edition of this unique, flexible approach builds on the success of the first edition. The authors offer an emphasis on active learning, helping students learn algebra by gradually building both their intuition and their ability to write coherent proofs in context.

The goals for this text include:

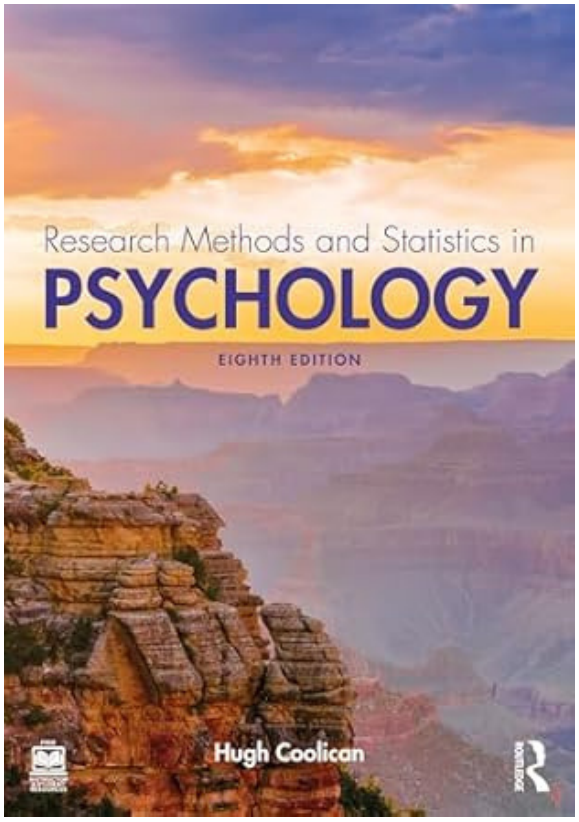
- Allowing the flexibility to begin the course with either groups or rings.
- Introducing the ideas behind definitions and theorems to help students develop intuition.
- Helping students understand how mathematics is done. Students will experiment through examples, make conjectures, and then refine or prove their conjectures.
- Assisting students in developing their abilities to effectively communicate mathematical ideas.
- Actively involving students in realizing each of these goals through in-class and out-of-class activities, common in-class intellectual experiences, and challenging problem sets.

Source :Amazon

Hodge, Jonathan K. (2024) *Abstract Algebra: An Inquiry-Based Approach*. CRC Press.

Research Methods and Statistics in Psychology

By Hugh Coolican



Research Methods and Statistics in Psychology provides students with the most readable and comprehensive survey of research methods, statistical concepts and procedures in psychology today. Assuming no prior knowledge, this bestselling text takes you through every stage of your research project, giving advice on planning and conducting studies, analysing data and writing up reports, both quantitative and qualitative. It incorporates diversity and includes a large section on cross-cultural psychology methods and issues.

The book continues it long tradition of integrating qualitative issues into methods chapters as well as providing two chapters dedicated to qualitative methods.

New edition features include:

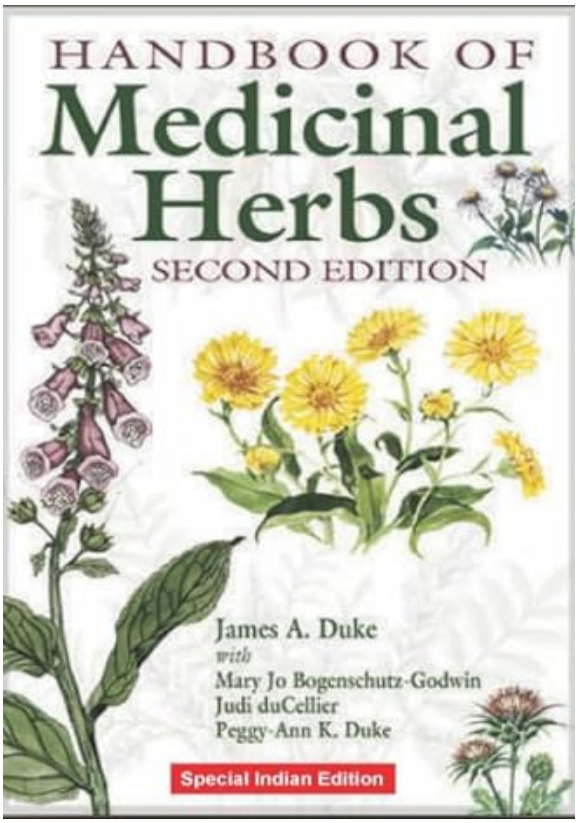
- Logistic regression
- Greater detail of online research methods
- Expanded coverage of report writing guidelines
- Concepts illustrated with up-to-date published research examples
- Instructor and Student Resource website signposted throughout the book to improve student usability

Source :Publisher

Coolican, Hugh(2024).*Research Methods and Statistics in Psychology. CRC* Press

Handbook Of Medicinal Herbs

By James A. Duke

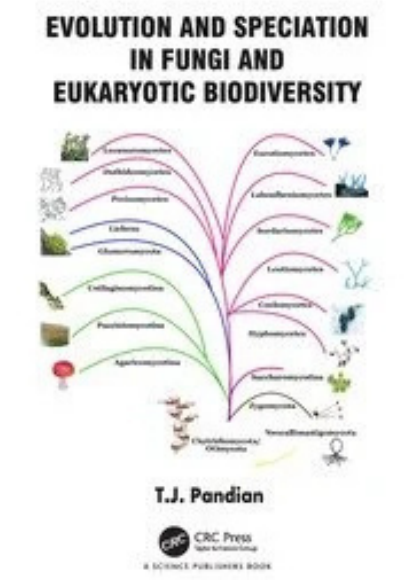


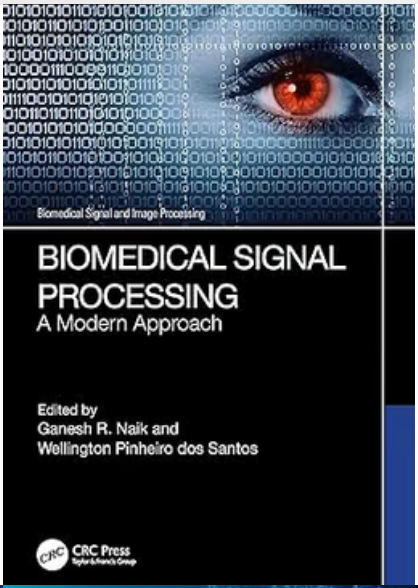
About The Book S ll considered the defini ve work on medicinal herbs and their uses aer two decades, the Handbook of Medicinal Herbs has undergone a long-ancipated revision. In the second edi on, world-renowned ethnobotanist James A. Duke provides up-to-date data on over 800 of the world's most important medicinal plant species. The book contains more species, phytochemicals, proven indicaons, folk indicaons, and dosage data than the first edi on in a new easier to use format.

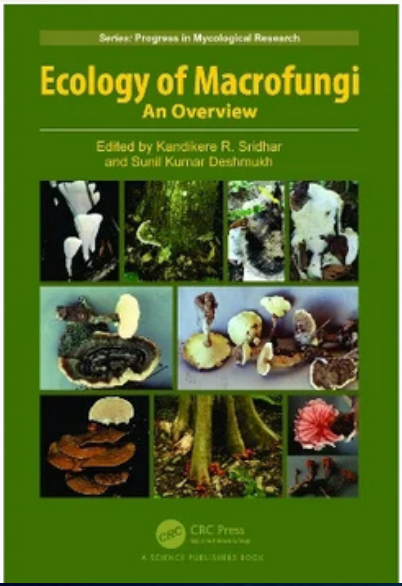
The in-depth content, the addi on of color plates and over 200 black and white illustraons makes this book the most comprehensive resource on medicinal herbs available.

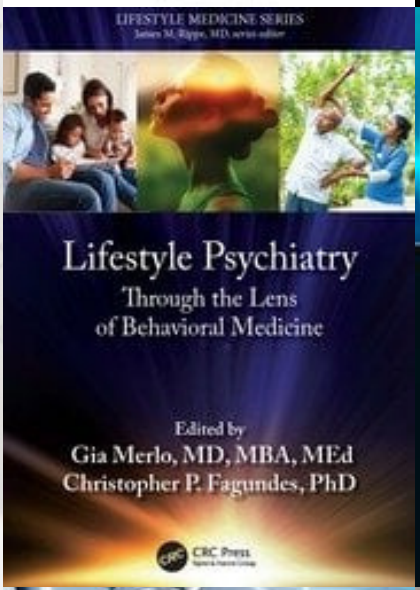
Source: Amazon

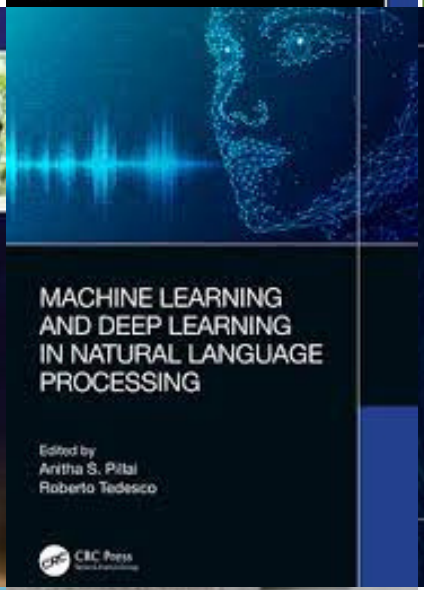
Duke, James A. (2023). *Handbook Of Medicinal Herbs.* CRC Press.

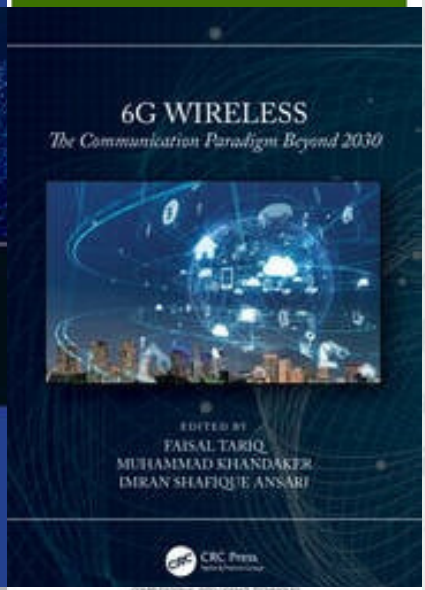


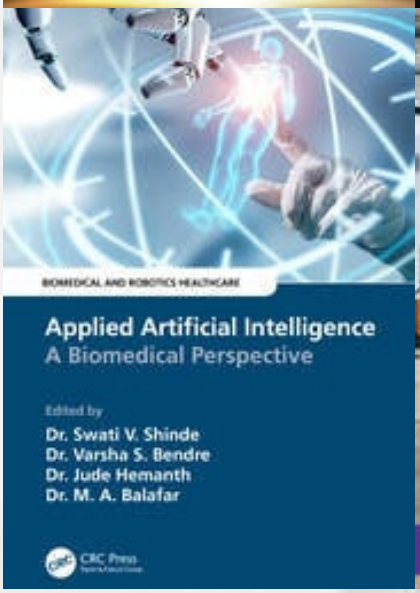


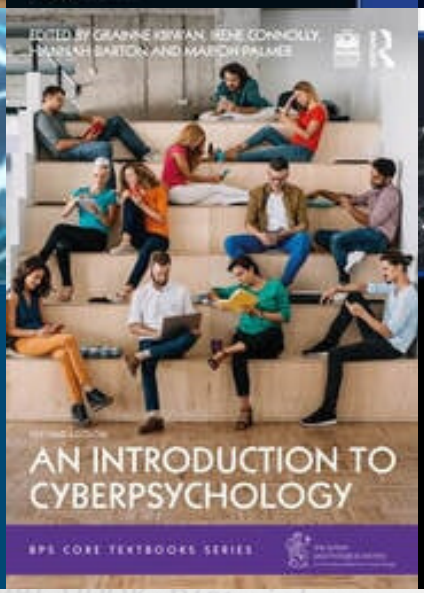


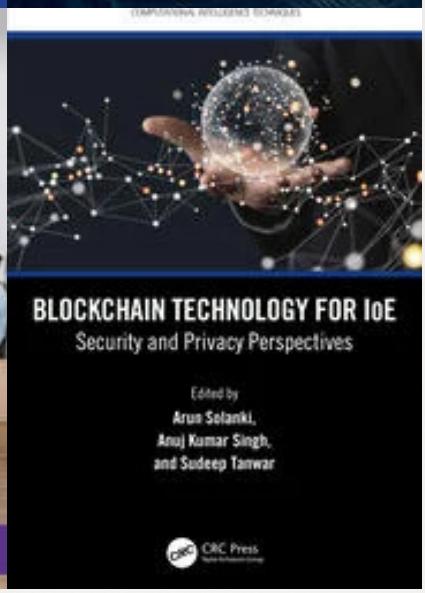












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