CHILDREN'S EDUCATION SOCIETY (Regd.)
Administrative Office:1st Phase JP Nagar, Bengaluru – 560 078☎: 080-3041 0501 – 502
THE OXFORD COLLEGE OF ENGINEERING
(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi & Approved by A.I.C.T.E. New Delhi, Accredited by NAAC-A & NBA New Delhi and Recognised by UGC Under Section 2(f)) Bommanahalli, Hosur Road, Bangalore –560068.☎: 080 -30219601/602, Fax: 080 – 25730551/ 30219629 E-mail: engprincipal@theoxford.edu Web: www.theoxford.edu

Books and chapter edited volumes/books published and paper published in national and international conference proceeding

Index

PRINCIPAL
The Oxford College of Engineering
Bommanahalli, Hosur Road
Bengaluru-560 068

CHILDREN'S EDUCATION SOCIETY (Regd.)
Administrative Office:1st Phase JP Nagar, Bengaluru – 560 078☎: 080-3041 0501 – 502
THE OXFORD COLLEGE OF ENGINEERING
(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi & Approved by A.I.C.T.E. New Delhi, Accredited by NAAC-A & NBA New Delhi and Recognised by UGC Under Section 2(f)) Bommanahalli, Hosur Road, Bangalore –560068.☎: 080 -30219601/602, Fax: 080 – 25730551/ 30219629 E-mail: engprincipal@theoxford.edu Web: www.theoxford.edu

Summary

In academic year 2022-23, the faculty of The Oxford College of Engineering has presented 17 papers in international conferences and published 12 Book/Book Chapters

Sl. No	Academic Year	Conferences		Book
		National	International	
1	**2022-23**	0	17	12
Total				29

CHILDREN'S EDUCATION SOCIETY (Regd.)
Administrative Office:1st Phase JP Nagar, Bengaluru – 560 078✆: 080-3041 0501 – 502
THE OXFORD COLLEGE OF ENGINEERING
(Recognised by the Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi & Approved by A.I.C.T.E. New Delhi, Accredited by NAAC-A & NBA New Delhi and Recognised by UGC Under Section 2(f)) Bommanahalli, Hosur Road, Bangalore –560068.✆: 080 -30219601/602, Fax: 080 – 25730551/ 30219629 E-mail: engprincipal@theoxford.edu Web: www.theoxford.edu

Sl. No.	Name of the teacher	Title of the book/chapters published	Title of the paper	Title of the proceedings of the conference	Name of the conference	National / International	Year of publication	ISBN/ISSN number of the proceeding	Affiliating Institute at the time of publication	Name of the publisher
1	Dr E Saravana Kumar	Teach Yourself Operating Systems	NA	NA	NA	National	2022	B0B8CC36Y1	The Oxford College of Engineering	Amazon - Kindle
2	J Jesy Janet Kumari	Electronic Circuits Analysis & its Simulation with PSPICE	NA	NA	NA	National	2023	ISBN-13: 9789355359506	The Oxford College of Engineering	Amazon - Kindle
3	Raghu Ramamoorthy, E. Saravana Kumar, R. Ch. A. Naidu, Shruthi	NA -	Hybrid MultiHop Routing Mechanism with Intelligent Transportation System architecture for Efficient Routing in VANETs	Second IEEE International Conference CENTCON-2022	Second IEEE International Conference CENTCON-2022	International	2022	ISBN: 978-1-6654-6374-4	The Oxford College of Engineering	IEEE

4	J Jesy Janet Kumari	NA	Medical Assistance for Alzheimer's Disease Using Smart Specs	4th International Conference I4C2022 (21st-23rd December 2022)	4th International Conference I4C2022 (21st-23rd December 2022)	International	2022	979-8-3503-9747-5	The Oxford College of Engineering	IEEE
5	Sathya M	NA	An Empirical Study on E-Commerce site using unique AI based features and Data science tools	4th International Conference on Electronics and Sustainable Communication System - ICESC 2023, 6th - 8th July.	4th International Conference on Electronics and Sustainable Communication System - ICESC 2023, 6th - 8th July.	International	2023	ISBN: 979-8-3503-0008-6	The Oxford College of Engineering	IEEE

6	Ramya Sri M	- NA	An Empirical Study on E-Commerce site using unique AI based features and Data science tools	4th International Conference on Electronics and Sustainable Communication System - ICESC 2023, 6th - 8th July.	4th International Conference on Electronics and Sustainable Communication System - ICESC 2023, 6th - 8th July.	International	2023	ISBN: 979-8-3503-0008-6	The Oxford College of Engineering	IEEE
7	Lenish Pramiee J	PROBLEM SOLVING AND PYTHON PROGRAMMING	NA	NA	NA	National	2023	ISBN-13:978-93-5577-603-7	The Oxford College of Engineering	Charulatha Publications
8	Manjula L	PROBLEM SOLVING AND PYTHON PROGRAMMING	NA	NA	NA	National	2023	ISBN-13:978-93-5577-603-7	The Oxford College of Engineering	Charulatha Publications

9	Vinotha D	NA	Trust Value-Based Energy-Efficient Routing to Improve Lifetime in Heterogeneous WBAN	International Conference on Artificial Intelligence and Application(ICAIA) Alliance Technology Conference	International Conference on Artificial Intelligence and Application(ICAIA) Alliance Technology Conference	International	2023	ISBN:978-1-6654-5628-9	The Oxford College of Engineering	IEEE
10	Vinotha D	NA	Prediction of Infant Growth using the Random Forest Algorithm	3rd International Conference on Advance Computing and Innovative Technologies in Engineering (ICACITE)	3rd International Conference on Advance Computing and Innovative Technologies in Engineering (ICACITE)	International	2023	ISBN:979-8-3503-9927-1	The Oxford College of Engineering	IEEE

11	Dr, E. Saravana Kumar	NA	IoT based Innovative Teaching Learning using Smart Class Rooms	2023 International Conference on Sustainable Computing and Data Communication Systems (ICSCDS)	2023 International Conference on Sustainable Computing and Data Communication Systems (ICSCDS)	Internatio nal	2023	10.1109/ICSCDS56580.202 3.10104589	The Oxford College of Enginee ring	IEEE
12	Dr.Vanaja Roseline	Internet of Everything :Smart Sensing Technologies	NA	NA	NA	internatio nal	2022	978-1-68507-865-2	The Oxford College of Enginee ring	Nova publishe rs
13	Ms .Diana	The APT Cyber Warriors With TTP Weapons to Battle: An Review on IoT and Cyber Twin	NA	NA	NA	internatio nal	2022	9781668457221	The Oxford College of Enginee ring	IGI global

14	Ranjith B Gowda; Vilas T, V; Komal G D; Venkatesh Badageri; Preeta Sharan; Ciro Rodriguez	NA	Bacterial Detection in Contaminated Water Using a Photonic Crystal Sensor	2023 International Conference on Smart Systems for applications in Electrical Sciences (ICSSES)	2023 International Conference on Smart Systems for applications in Electrical Sciences (ICSSES)	International	2023	979-8-3503-4729-6	The Oxford College of Engineering	IEEE
15	Suchandana Mishra; V. Sharmili; Saptha Sree M.; Sneha S.; Saara K.; Preeta Sharan	NA	Numerical Analysis for Flat Wheel Detection at Different Wagon Load	2023 10th International Conference on Computing for Sustainable Global Development (INDIACom)	2023 International Conference on Smart Systems for applications in Electrical Sciences (ICSSES)	International	2023	978-93-80544-47-2	The Oxford College of Engineering	IEEE
16	Neil Roy, Sandip Kumar Roy, Preeta Sharan	NA	Effective Brain Tumor Segmentation for MRI Image Analysis using Dual Attention	2023 10th International Conference on Computing for Sustainable Global Development (INDIACom)	2023 10th International Conference on Computing for Sustainable Global Development (INDIACom)	International	2023	978-1-6654-7703-1	The Oxford College of Engineering	IEEE

			Network based YOLACT ++							
17		NA	FEM Analysis of Railway Brake Disc for Safety of Train	2023 10th International Conference on Computing for Sustainable Global Development (INDIACom	2023 10th International Conference on Computing for Sustainable Global Development (INDIACom	International	2023	978-93-80544-47-2	The Oxford College of Engineering	IEEE
18	Roberto Santos, Paula Santos, Preeta Sharan, Ciro Rodriguez	NA	Technological Coefficient to Improve Research Development and Innovation Factors in the World	International Conference on Intelligent Technologies	International Conference on Intelligent Technologies	International	2023	978-981-99-1912-3	The Oxford College of Engineering	IEEE

19	Anup M Upadhyaya, Preeta Sharan	Photonic MEMS Sensor for Biomedical Applications	NA	NA	NA	International	2023	9781003331681	The Oxford College of Engineering	Taylors and Francis
20	Preeta Sharan	Distributed Bragg Reflector Biosensor for Medical Application	NA	NA	NA	International		9781003331681	The Oxford College of Engineering	Taylors and Francis
21	Jayakumar N, Devi Vighneshwari, Nisha C Rani	Artificial Intelligence Based Smart Power Systems	NA	NA	NA	International	Dec-22	9781119893967	The Oxford College of Engineering	Wiley-IEEE Press
22	Resna S R	NA	Space vector Pulse Width Modulation with 7 Level ANPC Converters for Capacitor Voltage Balancing	3rd International Conference on Innovative Practices in Technology and Management (ICIPTM)	3rd International Conference on Innovative Practices in Technology and Management (ICIPTM)	International	Feb-23	979-8-3503-3624-5	The Oxford College of Engineering	IEEE

23	Anup M Upadhyaya	NA	Design and Analysis of Pressure Sensor based on Micro Hole Photonic Crystal Slab	2023 10th International Conference on Computing for Sustainable Global Development (INDIACom)	2023 10th International Conference on Computing for Sustainable Global Development (INDIACom)	International	2023	978-93-80544-47-2	The Oxford College of Engineering	IEEE
24	Harshitha N	NA	Light Transmitting Concrete	international conference on advances in civil engineering (icace-ewit-2022)	international conference on advances in civil engineering (icace-ewit-2022)	International	2022	NA	The Oxford College of Engineering	Google Scholar
25	Pashant Hatewar	NA	the behavior of residential building under earthquake loads with and without shear wall	international conference on advances in civil engineering (icace-ewit-2022)	international conference on advances in civil engineering (icace-ewit-2022)	International	2022	NA	The Oxford College of Engineering	Google Scholar

26	Mr.jaideep R	NA	ROBOTIC HAND GESTURE	ICGCP	ICGCP	International	2023	ISBN: 9798392733033	The Oxford College of Engineering	Google Scholar
27	Dharamvir	Research Methodology : A Prospective	NA	NA	NA	National	2022	978-93-5515-734-8	The Oxford College of Engineering	Book Rivers
28	Dharamvir	New and Forthcomming : Cloud Computing	NA	NA	NA	National	2022	9789360000000	The Oxford College of Engineering	Book Rivers
29	Dr. Shipra Bhati	Environmental Pollution-Effects and Causes	NA	NA	NA	National	2022	978-93-95936-13-2	The Oxford College of Engineering	AGPH Books

.in Delivering to Bengaluru 560002 Update location Kindle Store Search Amazon.in

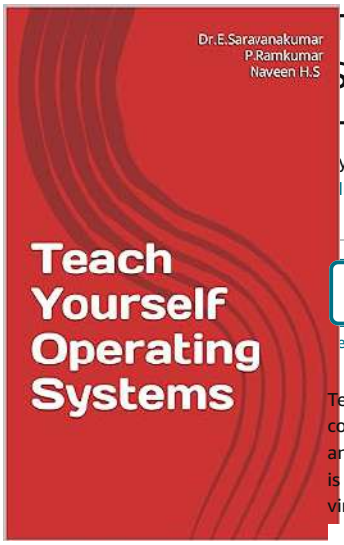
All Amazon miniTV Sell Today's Deals Best Sellers Mobiles Electronics

Kindle e-Readers Free Kindle Reading Apps Kindle eBooks Kindle Unlimited Prime Reading

ATLANTIC Remodeling the Universities (New Education Policy)

Subtotal 1,695.00

Only 2 left in stock.



Teach Yourself Operating Systems: P. Ramkumar Nave H.S Kindle Edition

by Dr.E. Saravanakumar (Author), Mr.P. Ramkumar (Autho Mr.Naveen H.S (Author) Format: Kindle Edition

See all formats and e

Kindle Edition
₹316.00

Read with Our **Free App**

Teach Yourself Operating systems is an essential part of computer system. Similarly, a course on operating systen an essential part of any computer science education. This is undergoing rapid change, as computers are now preva virtually every arena of day-to-day life from embedded c

Read more

Roll over image to zoom in

Read sample

Print length	Language	Pub
469 pages	English	1 A

Product details

ASIN : B0B8CC36Y1
Language : English
File size : 5559 KB
Simultaneous device usage : Unlimited
Text-to-Speech : Enabled
Screen Reader : Supported
Enhanced typesetting : Enabled
X-Ray : Not Enabled
Word Wise : Not Enabled
Print length : 469 pages
Best Sellers Rank: #1,070,252 in Kindle Store (See Top 100 in Kindle Store)
#55,961 in Education (Kindle Store)
#95,153 in Education (Books)

How would you rate your experience shopping for books on Amazon today?

Very poor Neutral Great

Customer reviews

No customer reviews

5 star 0%
4 star 0%

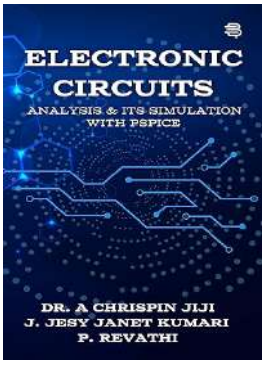
.in Delivering to Bengaluru 560002 Update location Books Search Amazon.in

All Amazon miniTV Sell Today's Deals Best Sellers Mobiles Electronics

Books Advanced Search New Releases & Pre-orders Best Sellers Browse Genres Children's

ATLANTIC India Higher Education Report 2017

Electronic Circuits Analysis & its Simulation with PSPICE



Roll over image to zoom in

Read sample

Paperback – 30 May 2023

by Dr. A. Chrispin Jiji (Author), J. Jesy Janet Kumari (Auth
Revathi (Author)

See all formats and e

Kindle Edition	Paperback
₹99.00	₹300.00
Read with Our Free App	1 New from ₹300.00

Save Extra with 2 offers

Bank Offer (11): 10% Instant Discount up to INR 1250
SBI Credit Card Non-EMI Trxn. Min purchase value INR 5

Partner Offers: Get GST invoice and save up to 28% or
business purchases. Sign up for free | Details

10 days Replacement | Amazon Delivered | Secure transaction

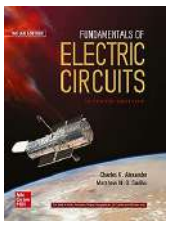
This book is intended to support the students of undergraduate engineering in the related fields of Electr and Communication Engineering as well as Telecommuni Engineering courses for practicing laboratory experiment gives relevant information on the basic understanding of

Read more

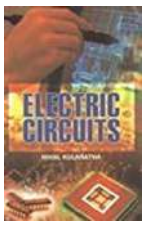
ISBN-10	ISBN-13	Pub
9355359500	978-9355359506	Books Publi

Products related to this item

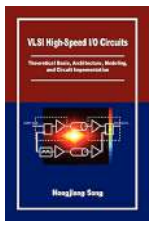
Sponsored



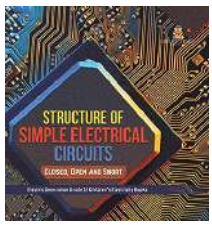
Fundamentals of Electric Circuits | 7th Edition
Charles K. Alexander
63
Paperback
Great Indian Festival
₹783.00
List: ~~₹1,050.00~~ (25% off)



Electric Circuits
Nihal Kularatna
Hardcover
₹795.00



VLSI High-Speed I/O Circuits
Hongjiang Song
8
Paperback
₹5,532.00



Structure of Simple Electrical Circuits: Closed, Open and Short Electric Generation...
Baby Professor
1
Hardcover
₹1,413.00

Crafting Characters: Character Analysis For Film & TV
Ming Kei Malcolm Liao
2
Paperback
₹389.00

Product details

Hybrid MultiHop Routing Mechanism with Intelligent Transportation System architecture for Efficient Routing in VANETs

Publisher: IEEE

Cite This PDF

Raghu Ramamoorthy ; Saravana Kumar E ; R Ch A Naidu ; Sathya M **All Authors**

55
Full
Text Views

Alerts

Manage Content Alerts
Add to Citation Alerts

Downl

IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our Privacy Policy.

Accept & Close

Loading [MathJax]/extensions/MathZoom.js

Abstract: Intelligent Transportation Systems (ITS) are required for efficient vehicle communication in the smart city. The goal of ITS was to provide a broad range of services in t... View more

Metadata

Abstract:

Intelligent Transportation Systems (ITS) are required for efficient vehicle communication in the smart city. The goal of ITS was to provide a broad range of services in transportation, safety, comfort, commercial, mobility, and connectivity applications. In this era, road traffic is a major annoyance. The provision of real-time traffic information to drivers, in conjunction with a navigation system, can enable vehicles to choose the best route. To support ITS, this work proposes a Hybrid Multi-hop Routing Mechanism with Intelligent Transportation System (HMRM-ITS) for efficient communication among vehicles in vehicular ad hoc networks (VANETs). The proposed HMRM-ITS employs the multi-hop routing concept to enable vehicles to improve their driving performance and road safety. Furthermore, the proposed HMRM-ITS allows the transportation organization to communicate instantly between vehicles to Road-Side Units (RSUs), as well as vehicles-traffic servers in an efficient manner. The proposed mechanism enhanced the complete spatial use of a road network by lowering average travel costs of vehicles with a 5-10 % reduction in traffic overhead over existing mechanisms. Additionally, the HMRM-ITS outperforms existing mechanisms in the form of packet transmission delay and throughput.

Published in: 2022 International Conference on Disruptive Technologies for Multi-Disciplinary Research and Applications (CENTCON)

References

References is not available for this document.

Dept. of CSE, DSCE, Bangalore, India

Medical Assistance for Alzheimer's Disease Using Smart Specs

Publisher: IEEE

Cite This PDF

Seema Patil ; T Shobha ; J Jesy Janet Kumari ; Ruksar Khanum ; Ruzaina Anjum ; Sneha Manjunath ; Suriya Jan **All Authors**

66
Full
Text Views

Alerts

Manage Content Alerts
Add to Citation Alerts

Downl
PDF

Abstract: The Internet of Things (IoT) has firmly established itself as a popular technology. It strives to make it easier for people across domains to live an "Easy & Smart" lifes... **View more**

IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our Privacy Policy.

Accept & Close

Loading [MathJax]/extensions/MathZoom.js

▶ **Metadata**

Abstract:
The Internet of Things (IoT) has firmly established itself as a popular technology. It strives to make it easier for people across domains to live an "Easy & Smart" lifestyle. Machine vision and artificial intelligence (AI) are the sources of the idea of image recognition. Chronic illnesses, a catch-all phrase for conditions including Alzheimer's, Parkinson's, other types of dementia, cardiovascular disorders, and more, are on the rise. They come with challenges relating to ongoing supervision, care, and aid. Not everyone is prepared to handle the financial and ethical issues involving patients and their caretakers. Wearable IoT devices and AI offer a potential quick aid for dependable remote monitoring and help through ambient medical aid without jeopardizing the patient's confidentiality or privacy. The proposed work seeks to design a prototype that is inexpensive and provides pleasant patient healthcare. Concerning Alzheimer's, applications and IoT and AI devices are used to create a long-term fix. The patient will be able to recognize familiar people around them and capture knowledge for future reminders with the use of the proposed wearable camera-aided device in conjunction with a Bluetooth ear-complementary device. The AI component triggers constant reminders, which helps the patient stay more aware of their surroundings & situation.

Published in: 2022 4th International Conference on Circuits, Control, Communication and Computing (I4C)

Date of Conference: 21-23 December 2022

INSPEC Accession Number: 23336026

Date Added to IEEE *Xplore*: 07 March 2023

DOI: 10.1109/I4C57141.2022.10057684

▶ **ISBN Information:**

Publisher: IEEE

Print on Demand(PoD) ISSN: 2381-4128

Conference Location: Bangalore, India

References

References is not available for this document.

An Empirical Study on E-Commerce Site using Unique AI based Features and Data Science Tools

Publisher: IEEE

Cite This PDF

J Jesy Janet Kumari ; Aniket Singh ; R. Ch. A. Naidu ; M Sathya ; M Ramya Sri **All Authors**

33
Full
Text Views

Alerts

Manage Content Alerts
Add to Citation Alerts

Downl
PDF

Abstract: With the advancement of modern-day techniques in the field of Information Technology, the way of shopping through E-Commerce site is becoming outdated. There are two ways... View more

IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our Privacy Policy.

Accept & Close

Loading [MathJax]/extensions/MathZoom.js

▸ Metadata

Abstract:
With the advancement of modern-day techniques in the field of Information Technology, the way of shopping through E-Commerce site is becoming outdated. There are two ways through which an individual can do shopping first is the online method and second is the offline one in today's world online shopping by having more variety of products available on individual platform with easy way of shopping because of this day by day the retailers with offline method are facing challenges to increase their sales and obtaining data of demanding products that are available in the market, now with the growth of artificial intelligence, they can use lot of beneficiary tools to boost their business. If a giant next generation E-Commerce site is made with which we can connect all the wholesalers, retailers and customers with their own point of profits, then it can bring a new revolution in the market where there will be different layers will be available with separate user friendly graphic user interface for all wholesalers, retailers and customers, where they will be allowed to access their own layers accordingly with several unique features and benefits to save time and making shopping more amazing for customers and selling their products and boosting daily sales for the retailers with the influence of top wholesalers available to help them with the unique kind of trading system and daily analytics and progress report using data science.

Published in: 2023 4th International Conference on Electronics and Sustainable Communication Systems (ICESC)

Date of Conference: 06-08 July 2023

INSPEC Accession Number: 23516445

Date Added to IEEE *Xplore*: 01 August 2023

DOI: 10.1109/ICESC57686.2023.10193110

▸ **ISBN Information:**

Publisher: IEEE

Conference Location: Coimbatore, India

References

References is not available for this document.

Contents

An Empirical Study on E-Commerce Site using Unique AI based Features and Data Science Tools

Publisher: IEEE

Cite This PDF

J Jesy Janet Kumari ; Aniket Singh ; R. Ch. A. Naidu ; M Sathya ; M Ramya Sri **All Authors**

33
Full
Text Views

Alerts

Manage Content Alerts
Add to Citation Alerts

Downl
PDF

Abstract: With the advancement of modern-day techniques in the field of Information Technology, the way of shopping through E-Commerce site is becoming outdated. There are two ways... View more

IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our Privacy Policy.

Accept & Close

Loading [MathJax]/extensions/MathZoom.js

▸ Metadata

Abstract:
With the advancement of modern-day techniques in the field of Information Technology, the way of shopping through E-Commerce site is becoming outdated. There are two ways through which an individual can do shopping first is the online method and second is the offline one in today's world online shopping by having more variety of products available on individual platform with easy way of shopping because of this day by day the retailers with offline method are facing challenges to increase their sales and obtaining data of demanding products that are available in the market, now with the growth of artificial intelligence, they can use lot of beneficiary tools to boost their business. If a giant next generation E-Commerce site is made with which we can connect all the wholesalers, retailers and customers with their own point of profits, then it can bring a new revolution in the market where there will be different layers will be available with separate user friendly graphic user interface for all wholesalers, retailers and customers, where they will be allowed to access their own layers accordingly with several unique features and benefits to save time and making shopping more amazing for customers and selling their products and boosting daily sales for the retailers with the influence of top wholesalers available to help them with the unique kind of trading system and daily analytics and progress report using data science.

Published in: 2023 4th International Conference on Electronics and Sustainable Communication Systems (ICESC)

Date of Conference: 06-08 July 2023

INSPEC Accession Number: 23516445

Date Added to IEEE *Xplore*: 01 August 2023

DOI: 10.1109/ICESC57686.2023.10193110

▸ **ISBN Information:**

Publisher: IEEE

Conference Location: Coimbatore, India

References

References is not available for this document.

Contents

Problem Solving and Python Programming

Lenish Pramiee J
Assistant Professor
Computer Science and Engineering
The Oxford College of Engineering
Bangalore, Karnataka - 560068.

Manjula L
Assistant Professor
Computer Science and Engineering
The Oxford College of Engineering
Bangalore, Karnataka - 560068.

Rizvana M
Assistant professor
Computer science and Engineering
Sri Sairam College of Engineering
Bangalore, Karnataka - 562106.

For online purchase
www.charulathapublications.com

Problem Solving and Python Programming

Lenish Pramiee J
Assistant Professor
Computer Science and Engineering
The Oxford College of Engineering
Bangalore, Karnataka - 560068.

Manjula L
Assistant Professor
Computer Science and Engineering
The Oxford College of Engineering
Bangalore, Karnataka - 560068.

Rizvana M
Assistant professor
Computer science and Engineering
Sri Sairam College of Engineering
Bangalore, Karnataka - 562106.

For online purchase
www.charulathapublications.com

Trust Value-Based Energy-Efficient Routing Protocol to Improve Lifetime in Heterogeneous WBAN

Publisher: IEEE

Cite This PDF

T. Saravanan ; D Vinotha **All Authors**

45
Full
Text Views

References
References is not available for this document.

Alerts
Manage Content Alerts
Add to Citation Alerts

Downl
PDF

Abstract: Pervasive computation plays an integral part in WBANs. Along with pervasive methodologies, bio-sensors are available in a range of shapes and sizes, and depending on the ... **View more**

IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our Privacy Policy.

Accept & Close

▸ Metadata

Abstract:
Pervasive computation plays an integral part in WBANs. Along with pervasive methodologies, bio-sensors are available in a range of shapes and sizes, and depending on the state of the patient, multiple sensors can be inserted in, on, or around the human body to monitor, store, and relay vital signs for further investigation, judgments, and treatment. The tracking of patients' vital signs, as well as the time it takes to generate results, are essential components of the WBAN's integration into ubiquitous computing technologies. To ensure low power consumption, high precision of collected data, low latency, high efficiency, higher throughput with efficient bandwidth utilization, and synchronization with other systems and at the same time data must be stored and exchanged with care. To function successfully, a WBAN must first measure the quantity of electricity the device utilizes and then impose energy-efficient operating strategies. Current routing processes, such as the Stable Increased-Throughput Multi-hop Protocol for Link Efficiency (SIMPLE) and Mobility-supporting Adaptive Threshold-based Thermal-aware Energy-efficient Multi-hop Protocol (M-ATTEMPT), can be employed in WBANs by incorporating confidence measures into both the sensor data being monitored and the power levels needed for effective data broadcast to reach the sink. In contrast to Expected Transfers (ETX), this protocol avoids continuous communications and only forwards data of interest to the sink, resulting in minimal power usage and thereby increasing network reliability time, overall network lifetime, throughput, and end to end latency to 0.915 mw, 290 bits/s, and 250 ms, respectively.

Published in: 2023 International Conference on Artificial Intelligence and Applications (ICAIA) Alliance Technology Conference (ATCON-1)

Date of Conference: 21-22 April 2023

Date Added to IEEE *Xplore*: 06 July 2023

▸ **ISBN Information:**

INSPEC Accession Number: 23390521

DOI: 10.1109/ICAIA57370.2023.10169521

Publisher: IEEE

Conference Location: Bangalore, India

Prediction of Infant Growth using the Random Forest Algorithm

Publisher: IEEE Cite This PDF

T. Saravanan ; S Saravanakumar ; Srinivas Dandu ; D Vinotha ; Ahmed Karim Kadhim ; Haider Al-Chlidi All Authors

34
Full
Text Views

References
References is not available for this document.

Alerts
Manage Content Alerts
Add to Citation Alerts

Downl
PDF

Abstract: Every parent is curious about their child's internal and exterior development. Childhood is the first stage of a person's existence. To comprehend and better explain many... **View more**

IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our Privacy Policy.
Accept & Close

Abstract:
Every parent is curious about their child's internal and exterior development. Childhood is the first stage of a person's existence. To comprehend and better explain many elements of action, including the emotional, physical, social, intellectual, perceptual, and personality development, extensive research has been done in the past. Child development analysis is a scientific approach to evaluate growth, change, and stability. By learning more about how and why individuals develop and grow, one may better understand and meet a child's needs, allowing them to realize their full potential. Child development has a broad scope and a general purpose. However, just a few studies on early childhood development have been conducted. The project's objective is to use machine learning algorithm to forecast a child's future learning behavior and talents using a random forest algorithm and data-mining approach.

Published in: 2023 3rd International Conference on Advance Computing and Innovative Technologies in Engineering (ICACITE)

Date of Conference: 12-13 May 2023

Date Added to IEEE *Xplore*: 24 July 2023

ISBN Information:

INSPEC Accession Number: 23485095

DOI: 10.1109/ICACITE57410.2023.10182723

Publisher: IEEE

Conference Location: Greater Noida, India

Contents

IoT based Innovative Teaching Learning using Smart Class Rooms

Publisher: IEEE

Cite This PDF

M Ashwin. ; E Saravana Kumar ; R Ch A Naidu ; Raghu Ramamoorthy **All Authors**

29
Full
Text Views

Alerts

Manage Content Alerts
Add to Citation Alerts

Downl
PDF

Abstract: Nowadays students are expected to learn the subject easily through IoT based innovative teaching learning process. The innovative teaching learning process is achieved th... **View more**

IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our

Accept & Close

Loading [MathJax]/extensions/MathZoom.js

▶ **Metadata**

Abstract:
Nowadays students are expected to learn the subject easily through IoT based innovative teaching learning process. The innovative teaching learning process is achieved through smart class rooms. The smart class room is a classroom which fortified with hypermedia apparatuses aimed to improve teaching and knowledge. The main objective of smart class room is to create improved education and thoughtful through which the students can study their modules in smart method. The smart class room equipped with computers, LCD projectors, Laptops, DVD player, Video Cassette Recorder (VCR), Laptop cart (Podium), White board, Microphones etc. The smart class room standards like interactive white board, smart acoustic, senteo collaborating reply structure, airliner digital tab, smooth manuscript camera which makes the class room as digital class rooms.

Published in: 2023 International Conference on Sustainable Computing and Data Communication Systems (ICSCDS)

Date of Conference: 23-25 March 2023

INSPEC Accession Number: 23001447

Date Added to IEEE *Xplore*: 25 April 2023

DOI: 10.1109/ICSCDS56580.2023.10104589

▶ **ISBN Information:**

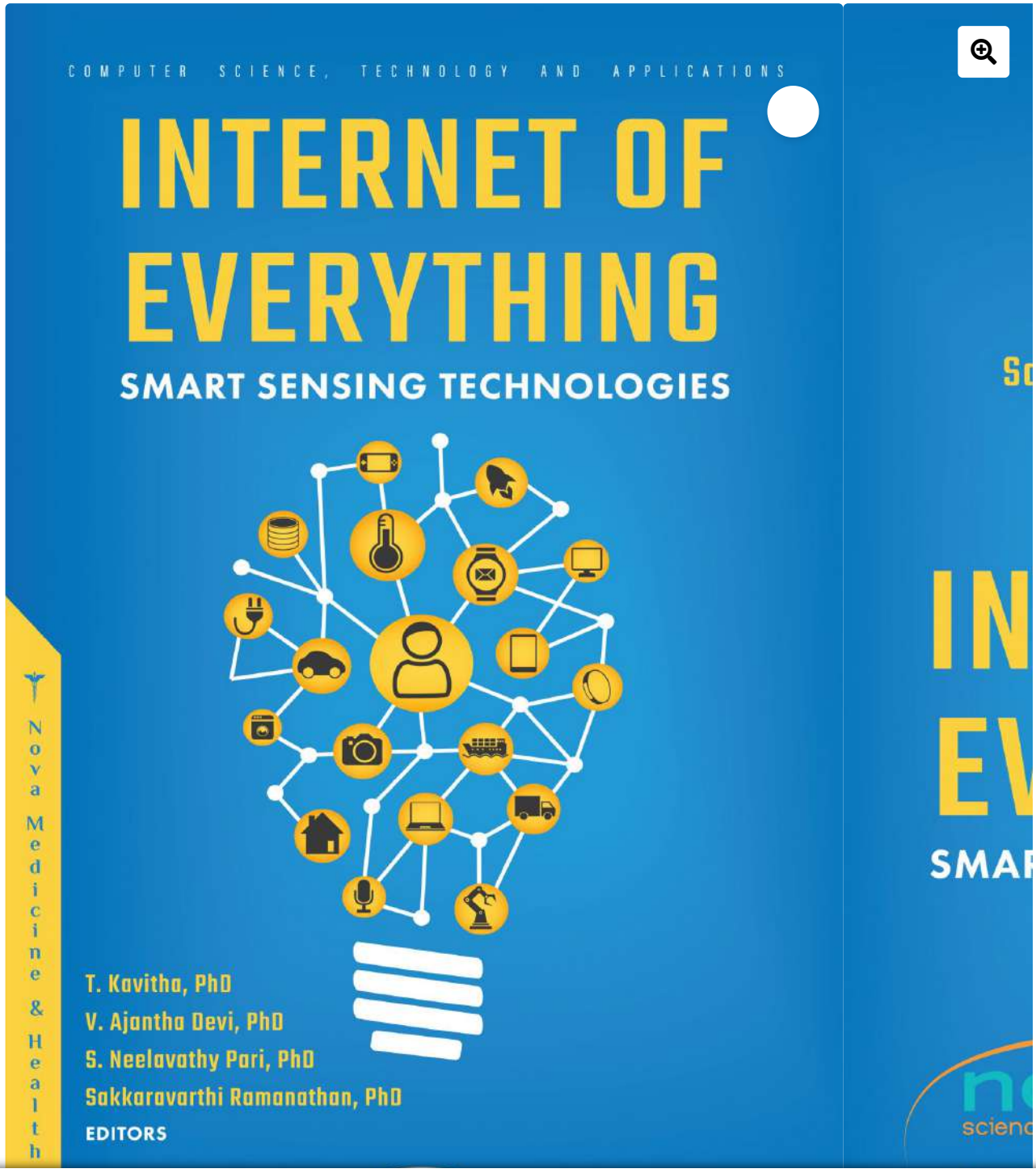
Publisher: IEEE

Conference Location: Erode, India

Contents

References

References is not available for this document.


COMPUTER SCIENCE, TECHNOLOGY AND APPLICATIONS
INTERNET OF EVERYTHING
SMART SENSING TECHNOLOGIES
Nova Medicine & Health
T. Kavitha, PhD
V. Ajantha Devi, PhD
S. Neelavathy Pari, PhD
Sakkaravarthi Ramanathan, PhD
EDITORS

The APT Cyber Warriors With TTP Weapons to Battle: An Review on IoT and Cyber Twin

Diana Arulkumar, Kartheeban K., Arulkumaran G.

Source Title: New Approaches to Data Analytics and Internet of Things Through Digital Twin (/book/new-approaches-data-analytics-internet/297026)
Copyright: © 2023
Pages: 15

DOI: 10.4018/978-1-6684-5722-1.ch011

OnDemand:
(Individual Chapters) $37.50

() Available

Current Special Offers

Abstract

Due to the blooming of Industrial 4.0 such as internet of things (IoT), cloud computing, industrial IoT (IIoT), and artificial intelligence (AI), with their innovative ideas and opportunities, the cyber attacker's modus operandi against the cyber defense triage is incredible. The genre of advanced persistent threat (APT) actors/group are equipped with sophisticated and substantial resources of tools, techniques, and procedure (TTP) at a breakneck pace. The IoT gadgets such as sensors, intelligent devices, and various rapidly emerging resources with energy, memory, and processing power are exponentially prone to multiple vulnerabilities. The nature of IIoT prompts heterogenous and rapid changes ranging the vulnerabilities from simple to complex attacks. APT menace follows the covert TTPs to target the asset of any organization like the government, military, or financial industry.

Chapter Preview

Top

Background

In order to categorize the identity of attackers, in 2006 APT Phrase is framed by U.S. Airforce Analysts. The characteristics of an APT attackers are well skilled and persistent, equipped with sophisticated resources and targeted. The APT attackers launch an attack in multi stages. The APT is multi stage model. Quintero-Bonilla .et.al,2020 says, that the APT life cycle model consists of three-stages with Initial compromise (IC), Lateral movement, command &control(C2C), intrusion kill chain (IKC) is a four-stage model Information Collection, Intrusion phase, Lateral expansion, Information theft phase, 4 Stages Initial Compromise, C&C, Lateral movement, Attack achievement. This model called attack chain which comprises five Stages such as Reconnaissance, Incursion, Discovery, Capture, Ex-filtration. 5 Stages Delivery, Exploit, Installation, C&C, Actions. Attackers once after run a malware and exploit the zero -day vulnerability, access the network through the compromised computer to achieve the default goals. This life cycle based on the intrusion kill chain model which consists of 6Stages like Reconnaissance, weaponization, Delivery, Initial intrusion, C&C, Lateral movement, Data ex-filtration. The Lockheed Martin company designed a life cycle called cyber kill chain CKC, to understand the attackers TTP, they proposed 7 Stages Research, Preparation, Intrusion, conquering network, hiding presence, gathering data, Maintaining access. (Formerly Mandiant) the FireEye, after done penetrated testing of the APT1 campaign, it concluded with 8 Stages Initial recons, Initial, compromise, establish foothold, Escalate, privileges, Internal recon, move laterally, Maintain presence, Complete mission. The ATT and CK Focuses on the tactics based on the cyber threat actor who wants to accomplishes strategic goal and it classifies into 11 Stages such as Initial access, Persistence, Privilege Escalation, Discovery, Lateral movement, Collection, Exfiltration Stages executed in parallel: Execution, Defence evasion, Credential access, and Command &Control.

Figure 1. A survey from 2018 to 2021 of cyber threats Challenges on IIoT

978-1-6684-5722-1.ch011.f01(https://igiprodst.blob.core.windows.net:443/source-content/9781668457221_297026/978-1-6684-5722-1.ch011.f01.png?sv=2015-12-11&sr=c&sig=0gKneCHM2cO1HKXLpPSY4OrTewz5Wpqfmv66J%2FbJWic%3D&se=2022-11-03T18%3A44%3A48Z&sp=r)

Bacterial Detection in Contaminated Water Using a Photonic Crystal Sensor

Publisher: IEEE

Cite This PDF

Ranjith B Gowda ; Vilas T V ; Komal G D ; Venkatesh Badageri ; Preeta Sharan ; Ciro Rodriguez **All Authors**

11
Full
Text Views

Alerts

Manage Content Alerts
Add to Citation Alerts

Downl
PDF

Abstract: This research proposes the design of an optical sensor that may be used to identify the presence of bacteria in contaminated water. We have taken a 2D photonic crystal st... **View more**

IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our Privacy Policy.

Accept & Close

▶ **Metadata**

Abstract:
This research proposes the design of an optical sensor that may be used to identify the presence of bacteria in contaminated water. We have taken a 2D photonic crystal structure into consideration for the design of the proposed sensor. An MIT-MEEP simulation tool is used to analyse the sensor. Studying the optical characteristics of various bacteria in water allows us to provide the refractive index value as an input to MEEP. Different bacteria's final responses to the proposed structure are analysed. The photonic crystal's refractive index profile changes when bacteria's refractive index varies. Because of the variation in bacteria's refractive index, the central frequency and wavelength are affected. The change in refractive index can be picked up by recording changes in the wavelength and frequency of the light transmitting through the structure. The analysis of the transmission and reflection spectra is made by using the MIT Electromagnetic Equation Propagation (MEEP) simulation tool. As bacteria's refractive index changes, it is shown that the wavelength and frequency shifts are significant.

Published in: 2023 International Conference on Smart Systems for applications in Electrical Sciences (ICSSES)

Date of Conference: 07-08 July 2023

Date Added to IEEE *Xplore*: 07 August 2023

▶ **ISBN Information:**

INSPEC Accession Number: 23547836

DOI: 10.1109/ICSSES58299.2023.10199921

Publisher: IEEE

Conference Location: Tumakuru, India

References

References is not available for this document.

Numerical Analysis for Flat Wheel Detection at Different Wagon Load

Publisher: IEEE

Cite This PDF

Suchandana Mishra ; V. Sharmili ; Saptha Sree M. ; Sneha S. ; Saara K. ; Preeta Sharan All Authors

17
Full
Text Views

Alerts

Manage Content Alerts
Add to Citation Alerts

Downl
PDF

Abstract: As there are many ways of locomotion in many parts of the country, but the most common and the least expensive locomotion for travelling and transporting heavy goods from... **View more**

IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our Privacy Policy.

Accept & Close

Abstract:
As there are many ways of locomotion in many parts of the country, but the most common and the least expensive locomotion for travelling and transporting heavy goods from one place to another place are railways, the most preferred ones. As the country develops, the transportation also develops from time to time. The most main criteria for improvement in railways are to improve the contact system of railway wheel to the tacks. A constant and consistent study on the rail-wheel system contact was tested for improve the values of railways. Our paper presents the finite element analysis with a rail-wheel model to get more accurate values of flat wheel contact. Optical sensors like fiber Bragg grating sensors gives the wavelength shift for various train conditions unloaded 22.3t to 70t, with sensitivity of 1.39 pm/με. This work gives idea on the improved process of the setup and the synthesis of the prospective exploratory techniques followed by ascendable, automotive, and working analysis.

Published in: 2023 10th International Conference on Computing for Sustainable Global Development (INDIACom)

Date of Conference: 15-17 March 2023

INSPEC Accession Number: 23318345

Date Added to IEEE *Xplore*: 04 May 2023

Publisher: IEEE

ISBN Information:

Conference Location: New Delhi, India

Contents

Sign In to Continue Reading

References

References is not available for this document.

Effective Brain Tumor Segmentation for MRI Image Analysis using Dual Attention Network based YOLACT++

Publisher: IEEE

Cite This PDF

Neil Roy ; Sandip Kumar Roy ; Preeta Sharan All Authors

33
Full
Text Views

Alerts

Manage Content Alerts
Add to Citation Alerts

Downl

IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our Privacy Policy.

Accept & Close

Abstract: A Brain Tumor is an abnormally growing clump of cells inside or around the brain, which can lead to a fatal situation if not detected at an earlier stage. Therefore, we p... View more

Loading [MathJax]/extensions/MathZoom.js

Metadata

Abstract:
A Brain Tumor is an abnormally growing clump of cells inside or around the brain, which can lead to a fatal situation if not detected at an earlier stage. Therefore, we present an Artificial Intelligence (AI) approach based on the YOLACT++ image segmentation model. In this technique, we introduced a two Dual attention network on the YOLACT++ architecture for the identification and segmentation of scanned MRI (Magnetic Resonance Imaging) for a brain tumor. We have applied the concepts of transfer learning by using RESNET-50 with Feature Pyramid Networks (FPN) as the backbone of our work. The experiment setup includes 400 images as a training set, and the results show that the proposed method achieved 94.71% segmentation accuracy for each segmentation. The proposed method is significantly higher than the previously published dice score of 88% for the Convolutional Neural Network (CNN) based approach.

Published in: 2023 10th International Conference on Computing for Sustainable Global Development (INDIACom)

Date of Conference: 15-17 March 2023

INSPEC Accession Number: 23318387

Date Added to IEEE *Xplore*: 04 May 2023

Publisher: IEEE

ISBN Information:

Conference Location: New Delhi, India

Contents

References

References is not available for this document.

FEM Analysis of Railway Brake Disc for Safety of Train

Publisher: IEEE

Cite This PDF

Deepa. N. ; Sneha Sharma ; H N Gayathri ; Preeta Sharan ; Rakesh BR ; Abhishek Gopalakrishna Bhat **All Authors**

23
Full
Text Views

Alerts

Manage Content Alerts
Add to Citation Alerts

Downl
PDF

Abstract: Monitoring the temperature of disc brakes is crucial for ensuring their optimal performance in railway applications. To address this issue, a finite element analysis is c... **View more**

IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our Privacy Policy.

Accept & Close

▶ **Metadata**

Abstract:
Monitoring the temperature of disc brakes is crucial for ensuring their optimal performance in railway applications. To address this issue, a finite element analysis is conducted using Ansys software to assess temperature fluctuations in various parts of the brake under different conditions. Various factors such as payload, speed, and other variables can affect the braking mechanism and lead to brake failure. By installing a FBG sensor on the axle near the contact surface between the brake and the axle, it is possible to detect temperature changes as heat flows from the brake's outer frictional surface towards the axle. This is significant because a small temperature variation near the axle can have the same impact as a large temperature variation near the frictional surface.

Published in: 2023 10th International Conference on Computing for Sustainable Global Development (INDIACom)

Date of Conference: 15-17 March 2023

INSPEC Accession Number: 23318399

Date Added to IEEE *Xplore*: 04 May 2023

Publisher: IEEE

▶ **ISBN Information:**

Conference Location: New Delhi, India

Contents

References

References is not available for this document.

Sign in to Continue Reading

SPRINGER LINK

Log in

Menu Search Cart

International Conference on Intelligent Technologies

ICIT 2022: **Proceedings of 7th ASRES International Conference on Intelligent Technologies** pp 169–179

Technological Coefficient to Improve Research Development and Innovation Factors in the World

Roberto Santos, Paula Santos, Preeta Sharan & Ciro Rodriguez

Conference paper | First Online: 06 July 2023

49 Accesses

Part of the Lecture Notes in Networks and Systems book series (LNNS,volume 685)

Abstract

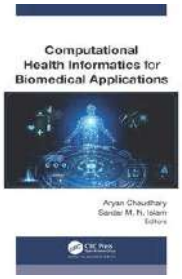
The new concept to measure snowfall and sophistication examines the relationship of the Technological Coefficient (T); the variables are grouped into three dimensions: Education and training, snowfall; and institutional strength. The analyzed population corresponds to 116 countries. 158 variables per country were collected for ten years. For the analysis, information from The dataset of Global Competitiveness Index Historical 2008–2018 of the World Economic Forum was used, with index, coefficient values, country codes, global id, identified series, and treatments (Income Groups, Regions, and Forum Ranking). A quantitative approach with descriptive, correlational, deductive, inductive, analytical, and synthetic methods were used such as hypothesis testing, linear regression analysis, ANOVA, PCA, univariate variance, and eta square. The T coefficient positive correlation with Innovation and sophistication factors (F = 5.202.18; Sig = .000), was able to reduce the error by 98%; and it served to evaluate the three treatments analyzed. The means of the income groups differ significantly, $F(1,344) = 8.83$, $p < 001$, $\eta 2 = 0.07$ for the dependent variable of the Technological Coefficient (T). In addition, the means of the Regions differ significantly, $F(1,341) = 7.99$, $p < 001$, $\eta 2 = 0.12$. The value of Eta squared indicated a large effect of income groups and Regions on the T coefficient. This analysis confirmed the power of the T coefficient to identify the countries that maximize innovation and the sophistication of their markets.

Keywords

Innovation **business sophistication** **intellectual property**

This is a preview of subscription content, access via your institution.

Chapter



Photonic MEMS Sensor for Biomedical Applications

By Anup M. Upadhyaya (/search?contributorName=Anup M. Upadhyaya&contributorRole=author&redirectFromPDP=true&context=ubx), Preeta Sharan (/search?contributorName=Preeta Sharan&contributorRole=author&redirectFromPDP=true&context=ubx)

Book Computational Health Informatics for Biomedical Applications (https://www.taylorfrancis.com/books/mono/10.1201/9781003331681/computational-health-informatics-biomedical-applications?refId=1300707a-7844-481e-8f9b-a3532f7bcfef&context=ubx)

Edition	1st Edition
First Published	2023
Imprint	Apple Academic Press
Pages	22
eBook ISBN	9781003331681

Share

ABSTRACT

< Previous Chapter (chapters/edit/10.1201/9781003331681-2/distributed-bragg-reflector-biosensor-medical-applications-ranjith-gowda-preeta-sharan?context=ubx)
Next Chapter > (chapters/edit/10.1201/9781003331681-4/chaotic-nonlinear-features-eeg-biomarkers-diagnosis-neuropathologies-jisu-elsa-jacob?context=ubx)

Scheduled Maintenance: On Tuesday, October 31, IEEE *Xplore* will undergo scheduled maintenance from 1:00-5:00 PM ET (5:00-9:00 PM UTC). During this time, there may be intermittent impact on performance. We apologize for any inconvenience.

IEEE.org IEEE *Xplore* IEEE SA IEEE Spectrum More Sites Subscribe Subscribe Cart Create Account Perso Sign

Browse My Settings Help Institutional Sign In

Institutional Sign In

All

ADVANCED SEARCH

Conferences > 2023 International Conference...

Bacterial Detection in Contaminated Water Using a Photonic Crystal Sensor

Publisher: IEEE Cite This PDF

Ranjith B Gowda ; Vilas T V ; Komal G D ; Venkatesh Badageri ; Preeta Sharan ; Ciro Rodriguez All Authors

11
Full
Text Views

Alerts

Manage Content Alerts
Add to Citation Alerts

Downl
PDF

Abstract: This research proposes the design of an optical sensor that may be used to identify the presence of bacteria in contaminated water. We have taken a 2D photonic crystal st... **View more**

Metadata

Abstract:
This research proposes the design of an optical sensor that may be used to identify the presence of bacteria in contaminated water. We have taken a 2D photonic crystal structure into consideration for the design of the proposed sensor. An MIT-MEEP simulation tool is used to analyse the sensor. Studying the optical characteristics of various bacteria in water allows us to provide the refractive index value as an input to MEEP. Different bacteria's final responses to the proposed structure are analysed. The photonic crystal's refractive index profile changes when bacteria's refractive index varies. Because of the variation in bacteria's refractive index, the central frequency and wavelength are affected. The change in refractive index can be picked up by recording changes in the wavelength and frequency of the light transmitting through the structure. The analysis of the transmission and reflection spectra is made by using the MIT Electromagnetic Equation Propagation (MEEP) simulation tool. As bacteria's refractive index changes, it is shown that the wavelength a

Published in: 2023 Internationa

Date of Conference: 07-08 July

Date Added to IEEE *Xplore*: 07

ISBN Information:

Access to this document requires a subscription.

IEEE offers both personal and institutional subscriptions. Whether you are an academic, a practitioner, or a student, IEEE offers a range of individual and institutional subscription options that can meet your needs.

LEARN MORE Close

Google Books Search Google Books Advanced search Back to classic Google Books

Welcome to the new Google Books

Take a look at the new look and features, or go back to classic Google Books

Got it

Computational Health Informatics for Biomedical Applications

2023

Preview | Search inside | + Add to my library

Overview | Get the book

About this edition

ISBN:	9781000771138, 100077113X	Page count:	364
Published:	30 June 2023	Format:	ebook
Publisher:	Apple Academic Press	Language:	English
Editors:	Aryan Chaudhary, Sardar M. N. Islam (Naz)		

Create citation | Table of contents

"The explosion of technology in healthcare in recent years has rapidly changed the healthcare sector. Technologies such as artificial intelligence and machine learning along with the integration of the Internet of Medical Things (IoMT) have evolved to tackle the need for remote healthcare systems, augmenting them in a self-sustainable way. This new volume explores computational tactics as applied to the development of biomedical applications, using artificial intelligence, machine learning, signal analysis, computer-aided design, robotics and automation, biomedical imaging, telemedicine, and other technologies. The book aims to provide a solid framework to provide the modern class of medical gearheads with information on the innovative applications of computational mechanisms for improv...

Source: Publisher

More about this edition

Get book

BUY DIGITAL

This edition | Any edition

Kindle Store
₹12,345.25 · ebook — Get book

BORROW

Find in a library
Search in WorldCat. — Search WorldCat

Other editions

About the work

Originally published: 2023

Editors: Aryan Chaudhary, Sardar M. N. Islam

Subject: Computers / Artificial Intelligence / General, more

Publisher

Apple Academic Press

www.crcpress.com

Search Apple Academic Press

Scheduled Maintenance: On Tuesday, October 31, IEEE *Xplore* will undergo scheduled maintenance from 1:00-5:00 PM ET (5:00-9:00 PM UTC). During this time, there may be intermittent impact on performance. We apologize for any inconvenience.

IEEE.org IEEE *Xplore* IEEE SA IEEE Spectrum More Sites Subscribe Subscribe Cart Create Account Pers Sign

Browse My Settings Help Institutional Sign In

Institutional Sign In

All

ADVANCED SEARCH

Segregation Of Blood Cells Using Low Powered Di-Electrophoretic Field Force

Publisher: IEEE

Cite This PDF

Rohit Dattatreya Hegde ; Raksha D S ; Ashwini V. R ; Preeta Sharan ; Anup M. Upadhyaya ; Ciro Rodriguez **All Authors**

4 Cites in Papers

32 Full Text Views

Alerts

Manage Content Alerts

Add to Citation Alerts

Downl PDF

Abstract: Blood separation involves isolation of particles and cells present in the blood that are called blood products - viz red blood cells, white blood cells, plasma, and cryop... **View more**

Metadata

Abstract:

Blood separation involves isolation of particles and cells present in the blood that are called blood products - viz red blood cells, white blood cells, plasma, and cryoprecipitates. Separation of whole blood into its blood products helps the patients to get only the necessary required part from whole blood. The design in this paper gives the idea of the separation of platelets from whole blood using the di-electrophoresis principle. The device is designed in such a way that it separates platelets with a reduced power consumption with 2.5 volts. It records an efficiency of 99.10% with minimum time duration or segregation of 0.7s making it an efficient design for blood segregation units. The simulation of this design showed successful separation of platelets with a high degree of accuracy.

Published in: 2022 IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT)

Date of Conference: 08-10 July 2022

Date Added to IEEE *Xplore*: 30 August 2022

ISBN Information:

ISSN Information:

INSPEC Accession Number: 22011106

DOI: 10.1109/CONECCT55679.2022.9865774

Publisher: IEEE

Conference Location: Bangalore, India

Multilevel Cascaded Boost Converter Fed Multilevel Inverter for Renewable Energy Applications

Publisher: Wiley-IEEE Press

Cite This PDF

is part of: Artificial Intelligence-based Smart Power Systems

Marimuthu Marikannu ; Vijayalakshmi Subramanian ; Paranthagan Balasubramanian ; Jayakumar Narayanasamy ; Nisha C. Rani ; … All Authors

39
Downloads

Alerts

Manage Content Alerts
Add to Citation Alerts

IEEE websites place cookies on your device to give you the best user experience. By using our websites, you agree to the placement of these cookies. To learn more, read our Privacy Policy.

Accept & Close

Downl
PDF

Chapter Abstract:A new multilevel cascaded boost converter (MCBC) with H-bridge inverter circuit for a single DC source is suggested in this chapter. The suggested technique consists of t... **View more**

▸ **Metadata**

Chapter Abstract:
A new multilevel cascaded boost converter (MCBC) with H-bridge inverter circuit for a single DC source is suggested in this chapter. The suggested technique consists of two stages: MCBC consists of a single DC source is the first stage that produces a multilevel DC output, and the second stage consists of an H-bridge inverter that inverts multilevel DC to multilevel AC at the desired frequency. This kind of MCBC DC–DC converter not only reduces the number of DC sources but also enhances the high voltage gain. These causes reduce the then inverter space required by increasing the number of capacitors and diodes in the DC to DC converter. This kind of topology reduces the number of switches when compared with the conventional topology. For the suggested design is compared to comparable topologies in the current literature. The simulation results are represented using MATLAB/Simulink, and the suggested MCBC fed inverter operation is verified through hardware also.

Page(s): 37 - 64

DOI: 10.1002/9781119893998.ch3

Copyright Year: 2023

Publisher: Wiley-IEEE Press

Edition: 1

▸ **ISBN Information:**

Authors

Keywords

IEEE.org IEEE *Xplore* IEEE SA IEEE Spectrum More Sites Subscribe

Browse My Settings Help Institutional Sign In

Institutional Sign In

All

ADVANCED SEARCH

Subscribe Cart Create Account Perso Sign

References

References is not available for this document.

Space vector Pulse Width Modulation with 7 Level ANPC Converters for Capacitor Voltage Balancing

Publisher: IEEE

Cite This PDF

Sabari L Uma Maheswari ; Resna S R ; R. Yalini ; Anithamary M ; R. Pandian ; Gowrishankar P **All Authors**

27
Full
Text Views

Alerts

Manage Content Alerts
Add to Citation Alerts

Downl
PDF

Abstract: The seven-level flowing, dynamic, unbiased, point-cinched converter of the half-breed. The converter geography is made up of an H-span for each stage and a three-level Ac... **View more**

Metadata

Abstract:

The seven-level flowing, dynamic, unbiased, point-cinched converter of the half-breed. The converter geography is made up of an H-span for each stage and a three-level Active Neural Point Clamped (ANPC) converter. Through the selection of the converter's exchanging circumstances, the voltage of the H-span is ferociously maintained with fundamental force. With extensive geographic reenactment effects, working ethics, voltage regulating techniques, and converter restrictions are jointly studied. By directing the exchanging obligation patterns of 2 PWM signals, which veer the activity event of excess exchanging states in each exchanging cycle, the voltage slantingly the flying capacitor is also synchronised. There are recreation and trial grades available to demonstrate the effectiveness of this tactic. a method for altering the voltage of capacitors, including flying and dc-interface capacitors, for the 7 level ANPC (7L-ANPC) converters. 7L-ANPC converters are worked at major repetition rates whereas various switches are worked with a constant exchanging repetition rate. to test the connection among the zero grouping voltage and the typical impartial point current. The impartial point potential is meant to be controlled by an ideal zero-arrangement voltage. Altering the trading responsibility cycles also synchronises the voltage across the flying capacitor. Every time a recurrent swapping state occurs throughout an exchange period, it is altered. It is possible to test the validity of this tactic using simulation and exploratory data.

Published in: 2023 3rd International Conference on Innovative Practices in Technology and Management (ICIPTM)

Date of Conference: 22-24 February 2023

INSPEC Accession Number: 23117612

Date Added to IEEE *Xplore*: 10 May 2023

DOI: 10.1109/ICIPTM57143.2023.10117778

ISBN Information:

Publisher: IEEE

Conference Location: Uttar Pradesh, India

Contents

Design and Analysis of Pressure Sensor based on Micro Hole Photonic Crystal Slab

Publisher: IEEE

Cite This PDF

Preetam Ambudkar ; Anup M Upadhayaya ; Preeta Sharan ; Nisha C Rani All Authors

34
Full
Text Views

References
References is not available for this document.

Alerts
Manage Content Alerts
Add to Citation Alerts

Downl
PDF

Abstract: This study presents a novel photonic crystal (PC) pressure sensor design and three-dimensional (3D) modeling and simulation for three different structures. A 2D PC slab b... **View more**

Metadata

Abstract:
This study presents a novel photonic crystal (PC) pressure sensor design and three-dimensional (3D) modeling and simulation for three different structures. A 2D PC slab based on silicon is used to implement the device on a SiO2 substrate. Using Ansys Workbench and the Rsoft Optical tool, strain/stress simulations, as well as spectrum simulations, are carried out. In this study, the deformation of various structures, including rectangular, circular, and square diaphragms, as well as variations in refractive index are taken into account when calculating the sensitivity of the suggested pressure sensor. The numerical findings demonstrate that when pressure is applied, the refractive index fluctuations increase the transmission spectrum's resonant wavelength while the deformation factor decreases it. It has been demonstrated that there is a linear relationship between the applied pressure and the intended micro-resonant cavity's wavelength. The square diaphragm has shown maximum sensitivity compared to other structures. For the minimum detectable applied pressure of 0.5 Pa, the simulation result shows that for the three types of datagrams rectangle, square, and circular it is found that there is a distinct shift in wavelength. For the circular diaphragm's shift in wavelength is 742 µm, whereas the rectangle and square observed shift in wavelength is 956 µm and 1016 µm respectively. This can be applied in biomedical applications. The proposed sensor system has shown feasibility for future fabrication.

Published in: 2023 10th International Conference on Computing for Sustainable Global Development (INDIACom)

Date of Conference: 15-17 March 2023

INSPEC Accession Number: 23318396

Date Added to IEEE *Xplore*: 04 May 2023

Publisher: IEEE

ISBN Information:

Conference Location: New Delhi, India

Contents

ROBOTIC HAND GESTURE

Dr.MANJULA C[1], Ms.SEEMA V[2] , Mr.JAIDEEP R[3]

Department Of Mechatronics Engineering, The Oxford College Of Engineering Bangalore
10th Milestone, Hosur Rd, Bommanahalli, Bengaluru, Karnataka 560068

[1]manjulac6060@gmail.com
[2]seemavnsa@gmail.com
[3]r.jaideep5@gmail.com

***Abstract*— This paper presents a new approach for controlling robotic hand gestures With the help of this technique one can pose a hand gesture in the vision range of a robot and corresponding to this notation, desired action is performed by the robotic system. Real-time hand tracking technique is used for object detection in the range of vision.**

I. INTRODUCTION

A Gesture Controlled robot is a robot which can be controlled by your hand gestures. You just need to have a small transmitting device in your hand, which included an acceleration meter to transmit an appropriate command to the robot so that it can do whatever we want.

A gesture-controlled robot is controlled by using the hand in place of any other method like buttons or joystick. Here one only needs to move the hand to operate the robot. A transmitting device is placed in the user's hand, which contains the RF Transmitter and accelerometer to transmit a command to the robot so that it can perform the required task of moving forward, back, turning left, right and stop. These tasks will be identified using the hand gesture.

II. LITERATURE SURVEY

[1] "Robotics and Automation in the Food Industry: Current Status and Future Perspectives" by M. Manfredottietal. This review article discusses the current state of robotics and automation in the food industry, including the use of robotic arms for tasks such as packaging, sorting, and palletizing.

There are number of methods available to clean the inside of the closed pipeline namely traditional method like boiling, picking, alcohol and salt and cleaning kits, or tools kits such as wire and plunger or large-gauge snake. However, all the methods can over-stress older pipeline and cause leaks that make even more extensive repair.

[2] "Design and Control of a Robotic Arm: A Review" by S. P. Mohanty. This paper provides a comprehensive review of the design and control of robotic arms, including kinematics, dynamics, and control algorithms.

[3] "A Survey on Robotic Arms for Service Robots" by Y. Zhang. This article reviews the current state of robotic arms for service robots, which are designed to interact with humans in various settings such as healthcare, education, and entertainment.

[4]. "Robotics and Automation in Construction: A Review of 3D Printing, Robotics, and Autonomous Systems" by J. Chen .This review paper discusses the use of robotic arms in construction applications, including 3D printing, bricklaying, and demolition.

[5]. "Design and Control of Robotic Arms for Rehabilitation and Assistive Technology: A Review" by F. C. Chen. This article reviews the use of robotic arms for rehabilitation and assistive technology applications, including prosthetics, exoskeletons, and wheelchairs

[6]. "Advances in Robotic Arm Design and Control for Precision Agriculture" by J. Chen This paper reviews the use of robotic arms in precision agriculture applications, including planting, harvesting, and spraying.

[7]. "A Review of Robot Manipulators: Dynamics, Control, and Applications" by M. W. Spong.This book provides a comprehensive overview of robot manipulators, including robotic arms, and covers topics such as kinematics, dynamics, and control.

Overall, these literature surveys provide an overview of the current state of research and development in the field of robotic arms, and highlight the various applications and challenges associated with this technology.

III MATERIALS and METHODOLOGY

The AT89S8252 is a low power, high-performance CMOS 8-bit microcontroller with 8K bytes of in-system programmable Flash memory. It is associated with circuitry like Crystal with capacitors, Reset circuitry, Pull up resistors (if needed) and so on.

The microcontroller controls the devices being interfaced and communicates with the devices according to the program being written. Maintaining the Integrity of the Specifications.

TRANSMITTER

The transmission section consists of three modules. They are ADC Converter, Encoders, Accelerometer and an RF Transmitter.

POWER SUPPLY

The input to the circuit is from the regulated power supply the AC input, i.e., 230V from the mains supply is stepped down using a transformer to 12V and is fed to a rectifier. The output got from a rectifier is a pulsating voltage. The output voltage from the rectifier is given to a filter to remove any AC noise. Now, this voltage is given to a voltage-regulator to obtain a pure dc voltage.

VOLTAGE REGULATORS

Voltage regulator ICs come with fixed or varying output
voltages. Most regulators include automatic protection from excessive current ('overload protection') and overheating ('thermal protection'). The LM7805 is easier to use, you simply connect the positive of your DC power supply to an Input pin, connect the negative to the Common pin and then when you turn on the power, you get a 5-volt supply from the output pin.

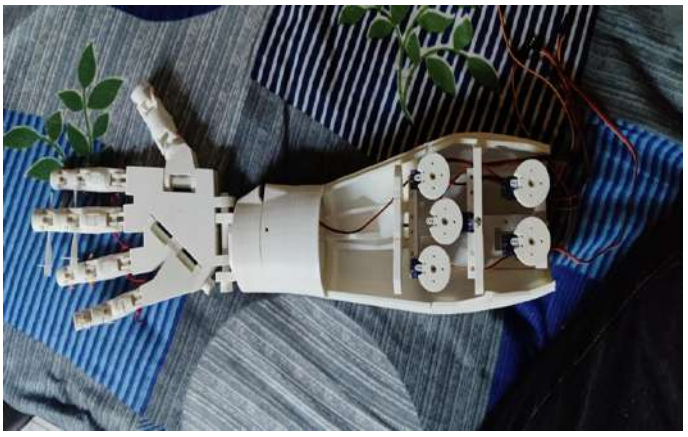


Fig. 1: components assembled

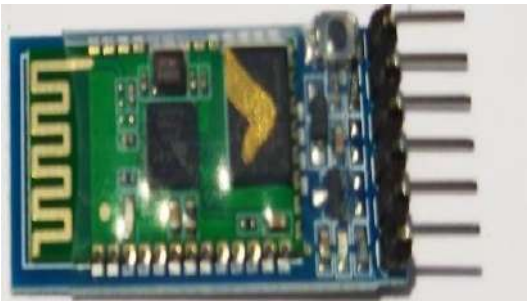
Gesture controlled robot moves according to the user's hand movement recognized by the device in our hand.

When we tilt hand in front side, the robot starts to moving forward and continues moving forward until the next command is given.

When we tilt hand in the backside, the robot changes its state and start moving in the backwards direction until another command is given.

When we tilt it towards the left side, it will turn left till next command. When we tilt our hand in right side robot is turned to the right.

Fig. 2: Bluetooth device.



A HC-06 is the popular Bluetooth module as in Fig. 3. This HC06 module is slave mode only. It's very easy to add wireless serial connectivity for your device with this module.

Examples for Arduino and other boards are available. Once you pair with other Bluetooth devices you work like with normal UART to exchange data.

This module has built-in 3.3V voltage regulator and helps to break out the important pins (Vcc, Gnd, Txd, Rxd). Based on CSR BC4 chip, Bluetooth V2.0 + EDR.

You can set the baud rate, name and pair password by AT commands when there is no Bluetooth connection. This module is a slave- it can be paired with Computer- Bluetooth master- mobile phone- PDA- PSP and so on.

IV.METHODOLOGY

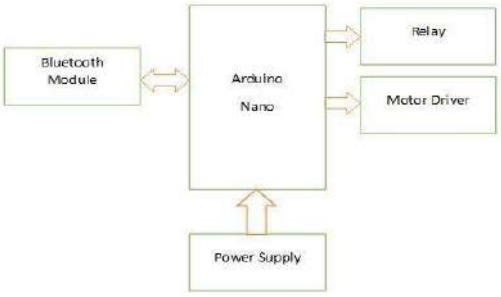


Fig 3: Block diagram

This block diagram consists of Arduino Nano, Bluetooth module, relay, motor driver and powersupply.

The Arduino Nano as in Fig. 5 is Arduino's classic breadboard friendly designed board with the smallest dimensions. The Arduino Nano comes with pin headers that allow for an easy attachment onto a breadboard and features a Mini-B USB connector.

The classic Nano is the oldest member of the Arduino Nano family boards. Arduino is an open hardware development board that can be used by tinkerers, hobbyists, and makers to design and build devices that interact with the real world.

The movement of the DC motor can be controlled by the bluetooth module, its work based on the Arduino nano fixed in the circuit.

A Gesture Controlled robot with Arduino Uno microcontroller has been designed during this work, which may be controlled by human hand gestures.

This needs to wear a little transmitting device on our hand included an accelerometer, which transmits particular commands to the robot to maneuver consistent with the users hand gesture and one receiver at the robot. The RF module usually works at a frequency of 434MHZ and also it has a range of 100meters.

The transmission occurs at the rate of 1Kbps-10Kbps. The transmitted data is received by the RF receiver operated at the same frequency as that of the transmitter. Transmission through RF(Radio frequency) is always better than IR(Infrared).

Circuit for this hand gesture-controlled robot is quite simple. An RF pair is used for communication and connection to the Arduino. The motor driver is connected with the Arduino to operate the robot. Motor driver's input pins 2, 7, 10 and 15 are connected to Arduino digital PIN 6, 5, 4 and 3. Here we are using used two DC motors to drive the robot in which one motor is connected at the output of motor driver 3 and 6, and another motor is connected at 11 and 14. A 9-volt battery is also used to power the motor driver for driving motors.

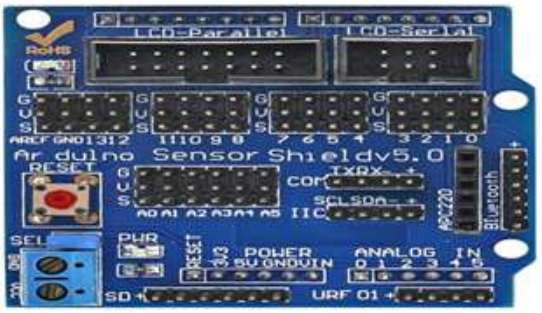


Fig 4: Circuit Diagram

This block diagram consists of Arduino Nano, Bluetooth module, relay, motor driver and power supply. The Arduino Nano as in Fig. 4 is Arduino's classic breadboard friendly designed board with the smallest dimensions.

The Arduino Nano comes with pin headers that allow for an easy attachment onto a breadboard and features a Mini-B USB connector.

The classic Nano is the oldest member of the Arduino Nano family boards. Arduino is an open hardware development board that can be used by tinkerers, hobbyists, and makers to design and build devices that interact with the real world.

The movement of the DC motor can be controlled by the bluetooth module, its work based on the Arduino nano fixed in the circuit.

The circuit fixed to the bread board and movement control can be operates with the bluetooth RC controller.

It requires Basic Python code to connect the bluetooth module, the python program dumped to the circuit.

The Arduino Nano is a small, complete, and breadboard-friendly board based on the ATmega328 (Arduino Nano 3.x).

It has more or less the same functionality of the Arduino Duemilanove but in a different package.

It lacks only a DC power jack, and works with a Mini-B USB cable instead of standard one.

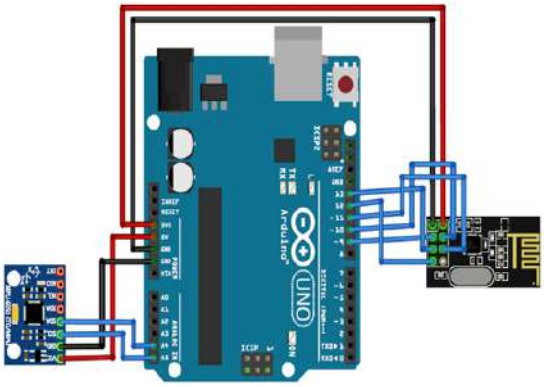


Fig 5: Circuit Diagram with bluetooth

- Arduino Uno (or an Arduino with enough Analogue input pins to support all the sensors)
- 20kg-cm torque Servos for wrist movement
- 2kg-cm torque Servos for fingers
- Atleast 40kg-cm torque servo for elbow and shoulder
- Arduino Sensor Shield

V. CONCLUSIONS

In this paper, we introduced a hand-gesture-based interface for navigating a car-robot. A user can control a car-robot directly by using his or her hand trajectories.

In the future, we will directly use a mobile phone with an accelerometer to control a car-robot.

We also want to add more hand gestures (such as the curve and slash) into the interface to control the car more naturally and effectively.

ACKNOWLEDGMENT

I would like to express our sincere gratitude to the Management and Principal, The Oxford College of Engineering Bangalore Also, i would like to thank the Head of department Mechatronics Engineering and faculties for their encouragement and support.

REFERENCES

[1] Chan Wah NG, Surendra Ranganath, Real-time Gesture Recognition
System And Application Image And Vision Computing(20): 993-1007,
2002.

[2] Sergios Theodoridis, Konstantinos Koutroumbas, Pattern Recognition,
Elsevier Publication, Second Edition, 2003.

[3] Seyed Eghbal Ghobadi, Omar Edmond Loepprich, Farid Ahmadov Jens Bernshausen, Real Time Hand Based Robot Control Using Multimodal Images, Iaengm International Journal Of Computer Science, 35:4, IJCS_35_4_08, Nov 2008.

[4]https://circuitdigest.com/
microcontrollerprojects/accelerometer-
basedhand-gesture-controlled-robotusing-
arduino

ADD TO CART | BUY NOW

Research Methodology: A perspective (Paperback, Dr. Saiqa Sadiq,Dr. V. Lakshmi Prasanna,Prof. Dharamvir,Rashi Malkhedkar)

Be the first to Review this product Assured

Special price

₹344 ~~₹450~~ 23% off

Available offers

- **Special Price** Get extra 23% off (price inclusive of cashback/coupon) T&C
- **Bank Offer** 10% off on Bank of Baroda Credit Card Txns, up to ₹1,500 on orders of ₹5,000 and abo T&C
- **Bank Offer** 10% off on Bank of Baroda Credit Card EMI Txns, up to ₹2,000 on orders of ₹5,000 and above T&C
- **Bank Offer** 10% off on ICICI Bank Debit Card Txns, up to ₹1250, on orders of ₹5,000 and above T&

View 19 more offers

Delivery Enter Delivery Pincode Check Enter pincode

Delivery by 22 Oct, Sunday | Free ~~₹40~~

View Details

Author Dr. Saiqa Sadiq,Dr. V. Lakshmi Prasanna,Prof. Dharamvir,Rashi Malkhedkar

Highlights

Binding: Paperback
Publisher: Book Rivers
Genre: Business
ISBN: 9789355157348
Edition: 2023
Pages: 264

Services Cash on Delivery available

Seller Repro Books on Demand 4.1

7 Days Replacement Policy

See other sellers

SuperCoin For every ₹100 Spent, you earn 2 SuperCoins
Max 50 coins per order

Specifications

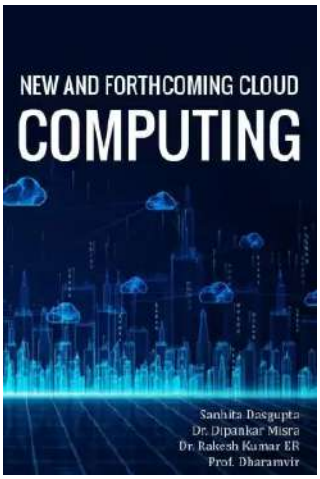
Book Details

Publication Year	2023 MARCH
Number of Pages	264

Dimensions

Width	0

Read More



ADD TO CART | BUY NOW

NEW AND FORTHCOMING CLOUD COMPUTING (Paperback, Sanhita Dasgupta Dipankar Misra ,Dr. Rakesh Kumar ,ER Prof. Dharamvir)

Be the first to Review this product

₹349

Available offers

- **Bank Offer** 10% off on Bank of Baroda Credit Card Txns, up to ₹1,500 on orders of ₹5,000 and abo T&C
- **Bank Offer** 10% off on Bank of Baroda Credit Card EMI Txns, up to ₹2,000 on orders of ₹5,000 and above T&C
- **Bank Offer** 10% off on ICICI Bank Debit Card Txns, up to ₹1250, on orders of ₹5,000 and above T&
- **Partner Offer** Sign-up for Flipkart Pay Later & get free Times Prime Benefits worth ₹20,000* Know More

View 18 more offers

Delivery — Enter Delivery Pincode — Check — Enter pincode

Delivery by 22 Oct, Sunday | ₹68

View Details

Author: Sanhita Dasgupta ,Dr. Dipankar Misra ,Dr. Rakesh Kumar ,ER Prof. Dharamvir

Highlights:
Binding: Paperback
Publisher: Book Rivers
ISBN: 9789355151940
Edition: 1, 2022
Pages: 223

Services: Cash on Delivery available

Seller: Sansrack 3.6

7 Days Replacement Policy

See other sellers

SuperCoin — For every ₹100 Spent, you earn 2 SuperCoins
Max 50 coins per order

Specifications

Book Details

Publication Year	2022 JULY
Number of Pages	223

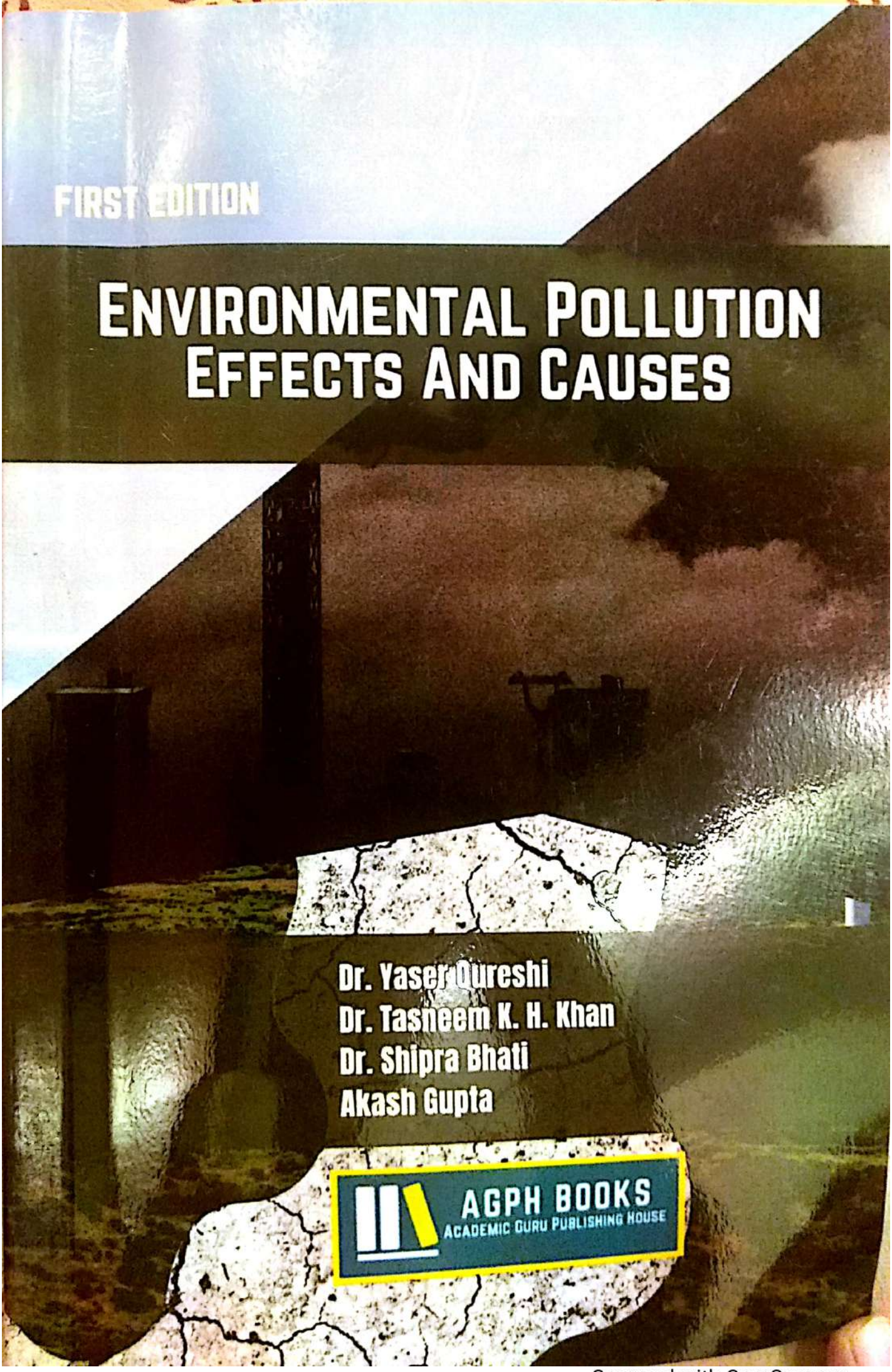
Dimensions

Width	0

Read More

FIRST EDITION

ENVIRONMENTAL POLLUTION EFFECTS AND CAUSES



Dr. Yaser Qureshi
Dr. Tasneem K. H. Khan
Dr. Shipra Bhati
Akash Gupta

AGPH BOOKS
ACADEMIC GURU PUBLISHING HOUSE

Scanned with CamScanner

Environmental Pollution: Effects And Causes

Dr. Yaser Qureshi, Dr. Tasneem K. H. Khan, Dr. Shipra Bhati, Akash Gupta

© 2022 @ Authors

All rights reserved. No part of this Publication may be reproduced or transmitted in any form or by any means, without permission of the author. Any person who does any unauthorised act in relation to this Publication may be liable to criminal prosecution and civil claims for damage. [The responsibility for the facts stated, conclusion reached, etc., is entirely that of the author. The publisher is not responsible for them, whatsoever.]

ISBN – 978-93-95936-13-2

Published by:

AGPH Books (Academic Guru Publishing House)

Bhopal, M.P. India

Contact: +91-7089366889

Scanned with CamScanner