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St. JOSEPH'S COLLEGE OF ENGINEERING

(An Autonomous Institution)

St. Joseph's Group of Institutions





Jeppiaar Educational Trust

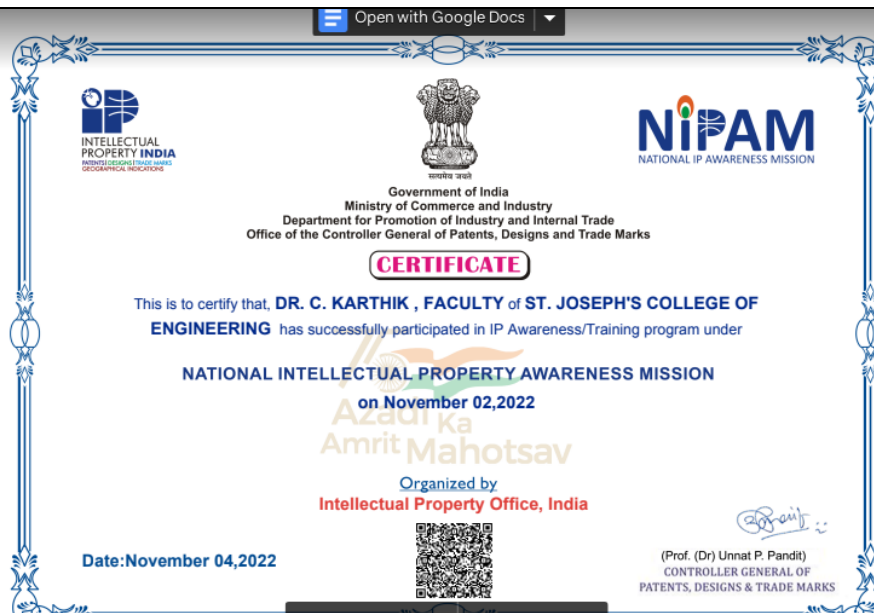
OMR, Chennai - 119.



NOVEMBER 2022

DEPARTMENT OF BIOTECHNOLOGY

| S.No. | Title of the Events and Photographs | Details of the Event |
|-------|--|---|
| 1. | <p>FDP/WORKSHOP/CONFERENCE</p> <div style="text-align: center;">  <p>Allied Health Sciences Chettinad Academy of Research and Education (Deemed to be University)</p> <p>CERTIFICATE OF PARTICIPATION</p> <p>This is to certify that L F A Anand Raj has participated in the "FAHS SCIENCE CLUB – NATIONAL LEVEL FACULTY SEMINAR" organized by Faculty of Allied Health Sciences, Chettinad Academy of Research and Education, Kelambakkam, TamilNadu, India on 19th November 2022.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Dr. S. Weslen Vedakumari Convener Assistant Professor, FAHS, CARE</p> </div> <div style="text-align: center;">  <p>Dr. K. Kumar Ebenezer Principal (i/c), FAHS, CHRI</p> </div> </div>  <p>e - Certificate</p> <p>Copy of Dr. L.F.A. Anand Raj Certificate</p> </div> | <p>Dr.L.F.A. Anand Raj, Associate Professor, Department of Biotechnology has participated in a FAHS Science club – National level faculty seminar conducted by Chettinad academy of research and education, kelambakkam on 19th November 2022</p> <p>Dr. C.Karthik, Associate Professor, Department of</p> |



Copy of Dr. C. Karthik Certificate



Copy of Ms. S. Yuwvaranni Certificate

Biotechnology has attended 1day online IP awareness training program conducted by Intellectual property office, India on 02.11.2022.

Ms. Yuwvaranni.S has attended 1day online Faculty Seminar Organized by Chettinad Academy of Research and Education, Chennai on 19.11.2022.

Ms B.Sangeetha, Assistant Professor, Department of Biotechnology has attended 1day online Faculty Seminar Organized by Chettinad Academy of Research and Education, Chennai on 19.11.2022

Ms. D. G. Caroline, Assistant Professor, Department of Biotechnology has attended 1day online IP awareness training program conducted by Intellectual property office, India on 02.11.2022.

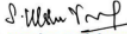
Ms. Antony Catherine Flora L attended a five days online faculty development programme on 'Recent advances in chemical engineering-2022' conducted by Rajalakshmi Engineering College on 8th to 12th November 2022.



Allied Health Sciences
Chettinad Academy
of Research and Education
(Deemed to be University)

CERTIFICATE OF PARTICIPATION

This is to certify that **Ms. B. Sangeetha** has participated in the
"FAHS SCIENCE CLUB – NATIONAL LEVEL FACULTY SEMINAR" organized by Faculty of Allied Health
Sciences, Chettinad Academy of Research and Education, Kelambakkam, TamilNadu, India
on 19th November 2022.


Dr. S. Weslen Vedakumari
Convener
Assistant Professor,
FAHS, CARE


Dr. K. Kumar Ebenezer
Principal (i/c),
FAHS, CHRI

e - Certificate







Copy of Ms. B.Sangeetha Certificate



Copy of Ms. D.G. Caroline Certificate



Copy of Ms. L. Antony Catherine Flora FDP certificate

| | | |
|----|---|---|
| 2. | INDUSTRIAL PROJECTS DONE BY STUDENTS | - |
| 3. | <p style="text-align: center;">PUBLICATIONS(ONLY PUBLISHED) DETAILS</p>  <p style="text-align: center;"> CERTIFICATE PROUDLY PRESENTED TO <i>Baskar Gurunathan</i> <hr/> Bioprocesses & Biotechnology: An Insight Session <hr/> Nov 22, 2022 Taylor & Francis Group <small>Date of Completion Organizer</small> </p> <p style="text-align: center;">    </p> <p style="text-align: center;">Dr. G. Baskar – Copy of certificate of participation</p> | <p>Dr. G. Baskar, Professor, Department of Biotechnology Participated in Panel Session on Bioprocesses & Biotechnology: An Insight Session, organized by Taylor and Francis Group in collaboration with the Biotech Research Society, India on 21.11.2022.</p> <p>Mr. Natraraj completed his Ph.D viva-voce on 18.11.2022 under the Guidance of Dr. G. Baskar. Title of the thesis is: AFFINITY IMPROVEMENT OF A THERAPEUTIC ANTIBODY (ANTICANCER DRUG) TRASTUZUMAB BY SEQUENCE-BASED COMPUTATIONAL DESIGN</p> <p>Dr. M. Chamundeeswari and Ms. K.R. Preethy published a paper on “Optimization of reduced Graphene oxide synthesis using central composite design analysis—A waste to value approach”, Environmental Science and Pollution Research (2022)</p> |



Printed Date : 27-10-2022 09:33:01-am

DH : AR8

Notification for Ph.D. Public Viva-Voce Examination

Name of the Scholar : Nataraj B
 Registration Number : 17145997126
 Degree / Category : Ph.D. / Part-Time
 Faculty : Technology
 Title of the Thesis : AFFINITY IMPROVEMENT OF A THERAPEUTIC ANTIBODY (ANTI-CANCER DRUG) TRASTUZUMAB BY SEQUENCE-BASED COMPUTATIONAL DESIGN
 Date and Time of Viva-Voce Examination : 18.11.2022 & 02:30-pm
 Venue : Seminar Hall
 Department of BioTech
 St. Josephs College of Engineering, Chennai
 600119
 Name and Address of the Supervisor : Dr.G.Baskar
 Professor
 Department of Biotechnology
 St. Josephs College of Engineering
 Chennai - 600119
 Name and Address of the Joint Supervisor/Research Co-ordinator/Supervisor In-charge : Not Applicable
 Online Meeting Details : <https://meet.google.com/vcq-fbyz-tg>

All are cordially invited to attend the Ph.D. Public Viva-Voce Examination

Date : 27-10-2022

Place : St. Josephs College of Engineering, Chennai, 600119

Dr. G. Baskar
 27/10/22

Signature of the Supervisor
 (Name, date and seal)
Dr. G. BASKAR, M.Tech., M.B.A., Ph.D., P.E.
 Professor
 Department of Biotechnology
 St. Joseph's College of Engineering
 Chennai - 600 119, India.

Signature of the Joint Supervisor/
 Research Co-ordinator / Supervisor
 In-Charge
 (Name, date and seal)
 (If applicable)

Dr. G. Sree Kumar
 27/10/22

Signature of the HoD/Head of the Centre of the Supervisor
 (Name, date and seal)
Dr.G.SREEKUMAR M.Sc., M.Tech., Ph D
 Professor & Head of the Department
 Department of Biotechnology
 St. Joseph's College of Engineering
 OMR Road, Chennai - 600 119, India

- Personal Secretary to Vice Chancellor, Anna University, Chennai - 25.
- Personal Assistant to Registrar, Anna University, Chennai - 25.
- The Controller of Examinations, Anna university, Chennai - 25.
- The Additional Controller of Examinations, Anna university, Chennai - 25.
- The Director, Centre for Research, Anna University, Chennai - 25.
- The Director, Ramanujan Computing Centre, Anna University, Chennai - 25.
- Dean / Director/Principal of Government, Government Aided and Affiliated Engineering Colleges.
- The Chairman, St. Josephs Group of Institutions, Chennai 600119.
- The Managing Director, St. Josephs Group of Institutions, Chennai 600119.
- The Executive Director, St. Josephs Group of Institutions, Chennai 600119.
- The Principal and Deans St. Josephs College of Engineering, Chennai 600119.
- The HoD, Department of Biotechnology, St. Josephs College of Engineering, Chennai 600119.



Dr. G. Baskar – Copy of student viva voce notification

Research Article | [Published: 18 November 2022](#)

Optimization of reduced Graphene oxide synthesis using central composite design analysis—A waste to value approach

[Preethy Kuppusamy Ravichandran](#) & [Chamundeeswari Munusamy](#) 

[Environmental Science and Pollution Research](#) (2022) | [Cite this article](#)

61 Accesses | [Metrics](#)

Abstract

In recent times, reduced graphene oxide has gained more attention in various fields. In our study, a direct synthesis of reduced graphene oxide using a novel carbon-rich agro-waste from *Pennisetum glaucum* was used. Ferrocene acted as an oxidizing agent during thermal degradation at 300 °C for 15 and 20 min to promote graphene oxide and reduced graphene oxide formation. The X-ray diffraction peak at 2θ indicating a shift from 16.86 to 24.28°, presence of functional groups like –OH stretching, –C = C–, C = O, C–O, and C–OH by Fourier transmission infrared spectroscopy, prominent D and G bands at 1308 cm^{-1} and 1578 cm^{-1} by Raman spectra and UV–visible spectroscopy peak shift from 235 to 245 nm (π – π^* , C = C bonds) confirmed the reduction of graphene oxide to reduced graphene oxide. The average

Copy of paper published by Dr.M.Chamundeeswari and Ms. K.R. Preethy

DEPARTMENT OF CHEMICAL ENGINEERING

| S.No. | Title of the Events and Photographs | Details of the Event |
|-------|--------------------------------------|--|
| 1. | VALUE ADDED COURSES | <ul style="list-style-type: none"> i. Dr. N.Venkatesh has successfully completed a NPTEL course on Training of Trainers |
| 2. | COMPETITIONS ATTENDED BY STUDENTS | <ul style="list-style-type: none"> i. Mukil.S and Praveen Kumar.V from III Year Chemical has participated in National Level Technical Symposium “Invente’22” conducted by SSN College of Engineering and Shiv Nadar University, Chennai on 3rd of November. |
| 3. | AWARDS/PRIZE WON BY STUDENTS | <ul style="list-style-type: none"> i. Mukil.S and Praveen Kumar.V from III Year Chemical has won Ist Place in the event Poster Presentation in National Level Technical Symposium “Invente’22” conducted by SSN College of Engineering and Shiv Nadar University, Chennai on 3rd of November. v. Mukil.S and Praveen Kumar.V from III Year Chemical has won IInd Place in the event Quiz in National Level Technical Symposium “Invente’22” conducted by SSN College of Engineering and Shiv Nadar University, Chennai on 3rd of November. |
| 4. | PUBLICATIONS(ONLY PUBLISHED) DETAILS | <ul style="list-style-type: none"> v. Dr.B.Senthil Rathi has Published a paper “<i>Electrodeionization:Principle, techniques and factors influencing its performance</i>”, <i>Environmental Research</i> 216, 114756. i. Dr.B.Senthil Rathi has Published a paper “<i>A Sustainable approach on thermal and catalytic conversion of waste plastics into fuels</i>”, <i>Fuel</i>,126977 |

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

| Sl. No. | Event with Photo | Description |
|---------|--|--|
| 1 | FDP on Developing Academic and Administrative Leadership (ICT 137) | <p>Date : 21.11.2022 to 25.11.2022 Venue : Online Nature of Event : Faculty Development Programme Participants : Engineering Faculties Organized by : NITTTR, Chanigarh</p> <ul style="list-style-type: none">• Objective:<ul style="list-style-type: none">• To get exposure on Academic and Administrative Leadership <p>Outcome:</p> <ul style="list-style-type: none">• Gained knowledge about the fundamentals of Leadership.• focus on creating conducive environment for personal academy growth and institution development within the institutions of higher learning• The ability to both communicate their own ideas effectively, as well as listen and prove engagement with the ideas of others. |

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

1. Grant Received:

The have been organized and conducted in the month of September and October 2022

| | |
|---|--------------|
| Optica Student Chapter | Grant |
| Received a special grant of \$1500 USD(Rs.1,19,520) from OPTICA Society -USA towards conducting a one day workshop on CYBERSECURITY during October 2022. | |

2. Publications:

The following staff member have published the research papers during October in Conference at International Level

| S. No. | Name of the Author | Paper Title | Name of the Conference | Publicati on Details | Date of Publication |
|--------|------------------------------------|--|---|--|--------------------------------|
| 1. | Dr. D.Lakshmi, Dr. R. Sivakumar | Multi-Class SVM Prediction Model for Lung Cancer Diagnosis | International Conference on Artificial Intelligence for Smart Community | Lecture Notes in Electrical Engineering book series (LNEE, volume 758)Pages :253-263 | 14 th November 2022 |
| 2. | S. Vinayagapriya. | Attractive image artifacts suppression in color transfer image | AIP Conference Proceedings | Volume 2518, Issue 1 | November 2022 |

3. FDP Attended by Faculty:

The following staff members have attended the Faculty Development Program in the month of November at National Level

| S. No. | Name of the Staff | Title of the FDP | Host Institution | Duration | Date of Completion |
|--------|-------------------|---|-------------------|----------|----------------------|
| 1. | Mrs.R.Madhumitha | Artificial intelligence and optimisation techniques | NITTTR Chandigarh | 5 | 21.11.22 to 25.11.22 |
| 2. | Mrs. S.Devipriya | Artificial intelligence and optimisation techniques | NITTTR Chandigarh | 5 | 21.11.22 to 25.11.22 |

| | | | | | |
|-----|-------------------------|---|--------------------------------------|---|--------------------------|
| 3. | Mrs. G.Anitha | Artificial intelligence and optimisation techniques | NITTTR Chandigarh | 5 | 21.11.22 to 25.11.22 |
| 4. | Mr. K.Ramachandra Reddy | Artificial intelligence and optimisation techniques | NITTTR Chandigarh | 5 | 21.11.22 to 25.11.22 |
| 5. | Dr. R. Niruban | Artificial intelligence and optimisation techniques | NITTTR Chandigarh | 5 | 21.11.22 to 25.11.22 |
| 6. | Mr. M.Lingeshwaran | Artificial intelligence and optimisation techniques | NITTTR Chandigarh | 5 | 21.11.22 to 25.11.22 |
| 7. | Dr. S. Rajeshkannan | Artificial intelligence and optimisation techniques | NITTTR Chandigarh | 5 | 21.11.22 to 25.11.22 |
| 8. | Dr. J. Sivakumar | Artificial intelligence and optimisation techniques | NITTTR Chandigarh | 5 | 21.11.22 to 25.11.22 |
| 9. | Dr. P. Ezhilarasi | Artificial intelligence and optimisation techniques | NITTTR Chandigarh | 5 | 21.11.22 to 25.11.22 |
| 10. | Mrs.K.R.Kayalvizhi | Artificial intelligence and optimisation techniques | NITTTR Chandigarh | 5 | 21.11.22 to 25.11.22 |
| 11. | Dr.Shirley Selvan | Signal Processing, Artificial Intelligence and Machine Learning in Biomedical Engineering | SSN (IEEE Signal Processing Society) | 3 | 16.11.2022 to 18.11.2022 |

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

| S.No | Events | Remarks |
|------|---|--|
| 1. |  <p style="text-align: center;">PIC: FDP poster</p> | <p>Our Electrical and Electronics Engineering Department in collaboration with National Institute of Technical Teachers' Training and Research (NITTTR) Chandigarh conducted Faculty Development Programme on MATLAB – Artificial Intelligence & Optimization Techniques during 21st November to 25th November. The internal and external faculty members are actively attended the programme and certified.</p> |
| 2. | <h2 style="margin: 0;">PLACEMENT DETAILS FOR THE MONTH OF NOVEMBER 2022</h2> | <p>Total No of students placed = 97 UG Students Total No of Offers = 144 Offers Total No of Students (UG) = 160 Total No of Eligible Students (UG) = 144 (All Clear & 1 arrear students) Total No of Eligible Students (PG) = 06 % of students Placed (UG) = $95/144 = 67.36\%$ % of students Placed (PG) = NIL No of students having single offers = 59 No of students having Double offers = 29 No of students having Triple offers = 09</p> |

3.



PIC: Paper Screen shot

Criteria 1

Our staff member Dr.V.Krishnakumar published paper title on “Optimal Battery Management System Utilized in Electric Vehicle Using Fuzzy Logic Controller (FLC) and Artificial Eco-System Algorithm (AEO)” in Cybernetics and Systems.

4.



PIC: IEEE Event poster

The IEEE SJCE SB மாணவர் மன்றம் of St. Joseph's College of Engineering in association with IEEE Madras Section conducted an online art competition “ஓவிய வானம்”. The event was conducted in the google form platform on the topic மாசு கட்டுப்பாடு . Over 15 participants attended the event and all of them were provided with a participation E-Certificate. The student coordinators for this event were Mani Sha. N, Jayashruthi R.V, AkshayaKrishnen, Amirtha Varshini. M and Godson S V Noble.

5.



PIC: IEEE Event poster

The “Sudoku Solving” is an online Sudoku solving contest event conducted by IEEE Student Branch Chapter of St. Joseph's College of Engineering under Women In Engineering Affinity Group on 7th November 2022. A total of 25 Participants participated in the event. The students were given a time limit and instructed to solve the Sudoku puzzle. The students who finished quickly were recognised as the contest winners.. The event started exploring the hidden talent of our Students and they were honoured with e-certificates for their outstanding contributions during the Event.

6.



PIC: IEEE Event poster

The IEEE SJCE SB மானவர் மன்றம் of St Joseph's College of Engineering in association with IEEE Madras Section conducted an online quiz event “வினா நேரம்”. The event was conducted in the google form platform on the topic மனித நாகரீகம். Over 25 participants attended the event and all of them were provided with a participation E-Certificate and the winner of this event is Rajesh, Udhayaraga and Abinaya Sri T. The student coordinators for this event were Mani Sha. N, Jayashruthi R.V, AkshayaKrishnen, Amirtha Varshini. M and Godson S V Noble.

7.



PIC: IEEE Event poster

The “TEDx TALKS” is an online English elocution event for students conducted by the Student Branch Chapter of St. Joseph's College of Engineering under Women In Engineering Affinity Group on 28th November 2022. A total of 20 Participants participated in the event. The students were given a topic and instructed to speak for about ten minutes on it. "Challenges Women Face in the Workplace" was the topic of the event. The event started exploring the hidden talent of our Students and they were honoured with e-certificates for their outstanding contributions during the Event.

8.



PIC: IEEE Training program

Abishlal N S (2019 - 2023) participated in the IEEE PES R10 Student Chapter Training Program being held in PARKROYAL COLLECTION Marina Bay, Singapore on November 01, 2022.

9.



PIC: IEEE Training program

IEEE India Council Award Ceremony happened at Balgotti Palace, Kochi on 25/11/2022. Our Student Branch was awarded the “ OUTSTANDING STUDENT BRANCH AWARD - 2022” and two students from our student branch, Mr. Mohamed Aashik S and Ms. Abinayaa Sri T have been awarded the “ OUTSTANDING STUDENT VOLUNTEER AWARD - 2022” and the “OUTSTANDING WIE STUDENT VOLUNTEER AWARD - 2022” respectively. Both students and our Student Branch Counselor Mr. Sreekanth attended the ceremony live.

10.



PIC: IEEE event photo

All India Student Young Professional Women in Engineering Life Congress was held in Pune from October 7 to October 9, 2022. From our Student Branch, Ms. Priyanka J participated as a Panelist, and Mr. Prasanth Kumar A V participated as an ambassador for the Congress.

11.



PIC: student with trophy

Our student THIKSHITHA .B who had won the GOLD in ANNA UNIVERSITY INTER ZONE BADMINTON TOURNAMENT held at Sri Sairam Engineering College on 14/11/2022 .

12.



PIC: student with trophy

Our student THIKSHITHA .B who had won the GOLD in ANNA UNIVERSITY ZONE BADMINTON TOURNAMENT held at The Loyola-ICAM College of Engineering and Technology, CHENNAI on 10/11/2022.

13.



PIC: students with trophy

Our students SHRUTHI V M, JANANI G & MALAR D who had won the GOLD in ANNA UNIVERSITY ZONE BASKETBALL TOURNAMENT held at SSN College of engineering on 24/11/2022 .

14.



PIC: convocation group photo

Convocation for the passed-out students of batches 2019,20 and 21 was held at St. Joseph's College of Engineering on 24-11-22. The department of Electrical and Electronics Engineering bagged a total of 20 ranks from all three batches including 1 Gold and 2 Silver medals. It was a moment of pride for the department and College celebrating the glory of our students with usual pomp and grandeur. Totally 459 graduates received their degree certificates in this memorable event.


15.

Hindawi
Journal of Electrical and Computer Engineering
Volume 2022, Article ID 8743334, 12 pages
<https://doi.org/10.1155/2022/8743334>



Research Article

Novel Switched Configuration-Based Multilevel Inverter Topology for Industrial Applications

V. Krishnakumar,¹ P. Anbarasan,¹ K. Ramash Kumar ,² and M. Venmathi¹

¹Department of Electrical and Electronics Engineering, St. Joseph's College of Engineering, Chennai, Tamilnadu, India

²Department of Electrical and Electronics Engineering, Dr. N.G.P Institute of Technology, Coimbatore 48, Tamilnadu, India

Correspondence should be addressed to K. Ramash Kumar; ramashkumar@drngpit.ac.in

Received 19 September 2022; Revised 28 October 2022; Accepted 11 November 2022; Published 21 November 2022

Academic Editor: Alessandro Lidozzi

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PIC: Paper Screen shot

Criteria 1

Our staff members Dr.V. Krishnakumar, Dr. P. Anbarasan, Dr.M. Venmathi, published paper title on "Novel Switched Configuration-Based Multilevel Inverter Topology for Industrial Applications", Journal of Electrical and Computer Engineering, vol. 2022, Article ID 8743334, 12 pages, 2022. <https://doi.org/10.1155/2022/8743334> (ESCI)

16.



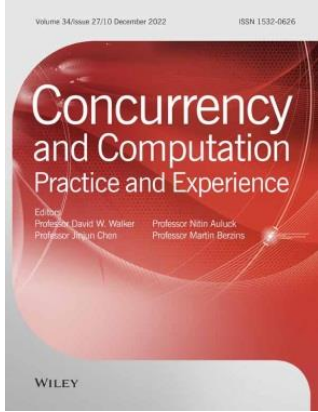
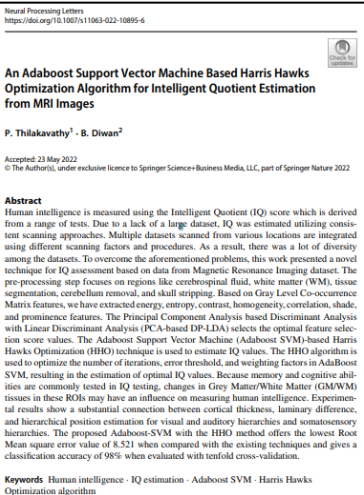
The following faculty members have completed the Online NPTEL Certification Course during June to Nov 2022.

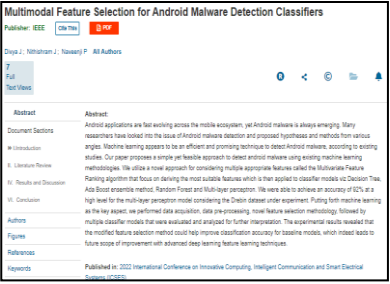

| Name of the Faculty | Name of the Course |
|-----------------------|--|
| Dr. V. Krishnakumar | Robotics |
| Dr. V. Chamundeeswari | Dc Microgrid and Control Systems |
| Dr.M.Venmathi | Solar Engineering and Technology |
| Ms.S.Gomathi | Physics for Renewable Energy System |
| Ms.R.G.Nirmala | Physics for Renewable Energy System |
| Mr.S.S.Harish | Accreditation and Outcome Based Learning |
| Dr. T. V. Narmatha | Basic Electric Circuits |
| Dr.M. Ramesh Babu | Basic Electric Circuits |
| Mr.C. Venkatesh Kumar | Basic Electric Circuits |
| Dr.P.Anbarasan | Basic Electric Circuits |
| Mr.R.Siddhardhan | The Joy of Computing using Python |

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING



| Sl. No. | Title | Detail | | | | | |
|---------|--|--------|----------------------|------------------------------------|-------------------|--------------|---|
| 1 | Webinar/ FDP Attended By Faculty | S.No | Faculty Name | Webinar /FDP attended/ workshop | Conducting agency | Period | Link |
| | | 1. | Dr.P.deepa | FDP | NPTEL | JUL-OCT 2022 | https://drive.google.com/file/d/1e9a5XqUV4GkqNofAurzd9B-b-ludFIW/view?usp=share_link |
| 2. | Publication/ Patent/Funded project/Awards | S.No | Faculty Name | Date | Publication | Type | Link |
| | | 1. | Dr.Gnanaprakasam C N | 25/11/2022 | Published | Patent | https://drive.google.com/file/d/1JwDHSwuKC-R56BuHvvMZ-Z4ubTqbJN6b/view?usp=share_link |
| | | 2. | Mr.Sankaran D | 18/11/2022 | Published | Patent | https://drive.google.com/file/d/14Xg8nRa6ZaA0QOqrHnd43EMIa4AubzIT/view?usp=share_link |


DEPARTMENT OF INFORMATION TECHNOLOGY

| Sl. No. | Photographs Captured During Event | Corresponding remarks in regarding the status of activity execution |
|---------|---|--|
| 1 |  <p style="text-align: center;">Author: Dr. D. Logeshwari published a paper (SCI Extended)</p> | <p style="text-align: center;">Staff Publication</p> <p>D. Logeshwari, P. Prem Priya, “Energy-efficient and privacy-preserving approach for Internet of Things nodes using a novel hybrid fuzzy water cycle and evaporation strategy and matrix-based Rivest–Shamir–Adleman encryption algorithm”, <i>Concurrency and Computation: Practice and Experience</i>, (Publisher: Wiley, E ISSN:1532-0634), p.e7240, https://doi.org/10.1002/cpe.7336, Vol. 34, No. 27, Oct 2022. (Impact Factor: 1.831, SCI Extended, Annexure-I).</p> <p>Abstract: The Internet of Things (IoT) connects physical components all around the world via the internet and provides people with easy access. Even though IoT offers speedy operations, saves money, and provides automation and control, it suffers from different complexities such as data breaches, security issues, and load balancing. To overcome these complexities in the IoT environment, we propose a novel strategy to deal with energy consumption issues and offer a privacy-preserving data transfer strategy. The proposed hybrid fuzzy water cycle and evaporation algorithm increases the lifetime of IoT networks by reducing the amount of energy required by massive IoT nodes and balancing traffic loads. To protect against malicious entries in cloud servers, the digital data block that is transported to be stored in the cloud is encrypted using the matrix-based RSA encryption technique. The significance of the proposed methodology is proven by simulated results that compare it to state-of-the-art methodologies in terms of security, system cost, resource utilization, and energy consumption. The resource utilization of this proposed methodology is 100% and the security level is 96%.</p> |
| 2 |  <p style="text-align: center;">Author: Ms.P. Thilakavathy published a paper (SCI Extended)</p> | <p>P. Thilakavathy, B. Diwan “An Adaboost Support Vector Machine Based Harris Hawks Optimization Algorithm for Intelligent Quotient Estimation from MRI Images”, <i>Neural Processing Letters</i>, Publisher: Springer, E ISSN: 1573-773X, Print ISSN: 1370-4621, https://doi.org/10.1007/s11063-022-10895-6, July 2022. (Impact Factor: 2.565, Annexure I, SCI Expanded)</p> <p>Abstract: This work presented a novel technique for IQ assessment based on data from Magnetic Resonance Imaging dataset. The pre-processing step focuses on regions like cerebrospinal fluid, white matter (WM), tissue segmentation, cerebellum removal, and skull stripping. Based on Gray Level Co-occurrence Matrix features, we have extracted energy, entropy, contrast, homogeneity, correlation, shade, and prominence features. The Principal Component Analysis based Discriminant Analysis with Linear Discriminant Analysis (PCA-based DP-LDA) selects the optimal feature selection score values. The Adaboost Support Vector Machine (Adaboost SVM)-based Harris Hawks Optimization (HHO) technique is used to estimate IQ values. The HHO algorithm is used to optimize the number of iterations, error threshold, and weighting factors in AdaBoost SVM, resulting in the estimation of optimal IQ values. Because memory and cognitive abilities are commonly tested in IQ testing, changes in Grey Matter/White Matter (GM/WM) tissues in these ROIs may have an influence on measuring human intelligence. Experimental results show a substantial connection between cortical thickness, laminary difference, and hierarchical position estimation for visual and auditory hierarchies and somatosensory hierarchies. The proposed Adaboost-SVM with the HHO method offers the lowest Root Mean square error value of 8.521 when compared with the existing techniques and gives a classification accuracy of 98% when evaluated with tenfold cross-validation.</p> |

| Sl. No. | Photographs Captured During Event | techniques and gives a classification accuracy of 98% when evaluated with tenfold cross-validation. Corresponding remarks in regarding the status of activity execution |
|---------|--|--|
| 3 |  <p>Ms. J. Divya, J. Nithishram, P. Naveenji published a conference paper (Scopus Indexed)</p> | <p style="text-align: center;"><u>Student and Staff Publication</u></p> <p>J. Divya, J. Nithishram, P. Naveenji, “Multimodal Feature Selection for Android Malware Detection Classifiers”, 2022 International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSES), Publisher: IEEE, E ISBN: 978-1-6654-7413-9, Print ISBN: 978-1-6654-7414-6, pp. 1-5, doi: 10.1109/ICSES55317.2022.9914324, 2022. (Indexed in Scopus)</p> <p>Abstract: Android applications are fast evolving across the mobile ecosystem, yet Android malware is always emerging. Many researchers have looked into the issue of Android malware detection and proposed hypotheses and methods from various angles. Machine learning appears to be an efficient and promising technique to detect Android malware, according to existing studies. Our paper proposes a simple yet feasible approach to detect android malware using existing machine learning methodologies. We utilize a novel approach for considering multiple appropriate features called the Multivariate Feature Ranking algorithm that focus on deriving the most suitable features which is then applied to classifier models viz Decision Tree, Ada Boost ensemble method, Random Forest and Multi-layer perceptron. We were able to achieve an accuracy of 92% at a high level for the multi-layer perceptron model considering the Drebin dataset under experiment. Putting forth machine learning as the key aspect, we performed data acquisition, data pre-processing, novel feature selection methodology, followed by multiple classifier models that were evaluated and analyzed for further interpretation. The experimental results revealed that the modified feature selection method could help improve classification accuracy for baseline models, which indeed leads to future scope of improvement with advanced deep learning feature learning techniques.</p> |
| 4 |  <p>Dr. C. Heltin Genitha, R. Kiruba Sangaree, V. Kokilavani published a conference paper (Scopus Indexed)</p> | <p>C. Heltin Genitha, R. Kiruba Sangaree, V. Kokilavani, “Intelligent Face Mask and Body Temperature Detection System using Machine Learning Algorithm”, 2022 International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems, Publisher: IEEE, E ISBN: 978-1-6654-7413-9, Print ISBN: 978-1-6654-7414-6, doi: 10.1109/ICSES55317.2022.9914237, pp. 1-6, ICSES 2022. (Indexed in Scopus)</p> <p>Abstract: Face mask and body temperature detection is necessary for current pandemic period. Detecting face mask and body temperature helps in decreasing or to avoid spreading of COVID cases especially in crowded areas. The main purpose of face mask recognition and temperature prediction system is to find whether a person is wearing a mask or not and to check the body temperature. With the help of deep neural network based Convolution Neural Network algorithm, face mask has been recognized. For body temperature, LM35 temperature sensor is used. This system undergoes data pre-processing, training, detecting face mask and temperature. By using MobileNet V2, Frontcascadexml file, tensor flow and keras software library the face mask is detected. Then, the result is send to the Arduino microcontroller and displays that the face mask is detected or not by using LED. If the mask is not weared by the person, buzzer will be alarmed. Similar procedure was carried out for monitoring the temperature of a person using LM35 temperature sensor. The main advantages of MobileNet V2 are higher performance, lesser network size and minimum number of parameter are required.</p> |


DEPARTMENT OF MECHANICAL ENGINEERING

| Sl No | Name of the Activity | Remarks |
|-------|--|--|
| 1 |  <p data-bbox="239 846 905 873">Interaction of placed students with third year students.</p> | <ul data-bbox="1192 285 2039 354" style="list-style-type: none">➤ Placed students of final year(Batch:2019-2023) interacted with third year students to create awareness about the interview process |
| 2 |  <p data-bbox="239 1274 485 1300">Alumni Interaction</p> | <ul data-bbox="1192 883 2039 951" style="list-style-type: none">➤ Alumni of passed out batch 2017-21 Mr.S.Aswin interacted with the final year students |

| | | |
|---|--|---|
| 4 |  | <ul style="list-style-type: none"> ➤ Mr.M.Ganesh attended one week online International FDP pn Trends and Challenges in the development of Electric Vehicles & Hybrid Vehicles organized by <i>Lendi Institute of Engineering and Technology</i> during the period of 14th to 18th November 2022.. ➤ Dr.N.E.Arun Kumar attended one week online International FDP pn Trends and Challenges in the development of Electric Vehicles & Hybrid Vehicles organized by <i>Lendi Institute of Engineering and Technology</i> during the period of 14th to 18th November 2022. ➤ Mr.G.Kasirajan attended one week online International FDP pn Trends and Challenges in the development of Electric Vehicles & Hybrid Vehicles organized by <i>Lendi Institute of Engineering and Technology</i> during the period of 14th to 18th November 2022. |
|---|--|---|

| 5 | <table border="1"> <thead> <tr> <th>S. No</th> <th>Name of the Student</th> <th>Year</th> <th>Name of the Event</th> <th>Organiser</th> <th>Place</th> <th>Cash Prize (Rs.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>PRINCE ANTONY CLARET. S</td> <td rowspan="2">IV</td> <td rowspan="2">BUZZ</td> <td rowspan="2">LOYOLA - ICAM</td> <td rowspan="2">I</td> <td rowspan="2">1000</td> </tr> <tr> <td>2</td> <td>SURESH</td> </tr> <tr> <td>3</td> <td>LIONEL MORAIS</td> <td rowspan="2">IV</td> <td rowspan="2">CRIME SCENE INVESTIGATION</td> <td rowspan="2">LOYOLA - ICAM</td> <td rowspan="2">II</td> <td rowspan="2">500</td> </tr> <tr> <td>4</td> <td>MADHAN. S</td> </tr> <tr> <td>5</td> <td>DAMODHARAN. A</td> <td rowspan="2">III</td> <td rowspan="2">WEB DECORZ</td> <td rowspan="2">R.M.K COLLEGE OF ENGINEERING</td> <td rowspan="2">II</td> <td rowspan="2">750</td> </tr> <tr> <td>6</td> <td>ASWIN. R. J</td> </tr> <tr> <td>7</td> <td>SARATHI. R</td> <td>II</td> <td>BUG OFF</td> <td>EASWARI ENGG. COLLEGE</td> <td>II</td> <td>1000</td> </tr> <tr> <td>8</td> <td>PRINCE ANTONY CLARET. S</td> <td rowspan="3">IV</td> <td rowspan="3">MARKETECH</td> <td rowspan="3">LOYOLA - ICAM</td> <td rowspan="3">II</td> <td rowspan="3">500</td> </tr> <tr> <td>9</td> <td>SURESH</td> </tr> <tr> <td>10</td> <td>SANJAY KALYAN</td> </tr> <tr> <td>11</td> <td>CHANDRU S</td> <td>III</td> <td>MR. DESIGNER</td> <td>R.M.K COLLEGE OF ENGINEERING</td> <td>II</td> <td>700</td> </tr> </tbody> </table> <p>Student Prize Winners</p> | S. No | Name of the Student | Year | Name of the Event | Organiser | Place | Cash Prize (Rs.) | 1 | PRINCE ANTONY CLARET. S | IV | BUZZ | LOYOLA - ICAM | I | 1000 | 2 | SURESH | 3 | LIONEL MORAIS | IV | CRIME SCENE INVESTIGATION | LOYOLA - ICAM | II | 500 | 4 | MADHAN. S | 5 | DAMODHARAN. A | III | WEB DECORZ | R.M.K COLLEGE OF ENGINEERING | II | 750 | 6 | ASWIN. R. J | 7 | SARATHI. R | II | BUG OFF | EASWARI ENGG. COLLEGE | II | 1000 | 8 | PRINCE ANTONY CLARET. S | IV | MARKETECH | LOYOLA - ICAM | II | 500 | 9 | SURESH | 10 | SANJAY KALYAN | 11 | CHANDRU S | III | MR. DESIGNER | R.M.K COLLEGE OF ENGINEERING | II | 700 | |
|-------|---|-------|---------------------------|------------------------------|-------------------|------------------|-------|------------------|---|-------------------------|----|------|---------------|---|------|---|--------|---|---------------|----|---------------------------|---------------|----|-----|---|-----------|---|---------------|-----|------------|------------------------------|----|-----|---|-------------|---|------------|----|---------|-----------------------|----|------|---|-------------------------|----|-----------|---------------|----|-----|---|--------|----|---------------|----|-----------|-----|--------------|------------------------------|----|-----|--|
| S. No | Name of the Student | Year | Name of the Event | Organiser | Place | Cash Prize (Rs.) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | PRINCE ANTONY CLARET. S | IV | BUZZ | LOYOLA - ICAM | I | 1000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | SURESH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | LIONEL MORAIS | IV | CRIME SCENE INVESTIGATION | LOYOLA - ICAM | II | 500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | MADHAN. S | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | DAMODHARAN. A | III | WEB DECORZ | R.M.K COLLEGE OF ENGINEERING | II | 750 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | ASWIN. R. J | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | SARATHI. R | II | BUG OFF | EASWARI ENGG. COLLEGE | II | 1000 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | PRINCE ANTONY CLARET. S | IV | MARKETECH | LOYOLA - ICAM | II | 500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | SURESH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | SANJAY KALYAN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | CHANDRU S | III | MR. DESIGNER | R.M.K COLLEGE OF ENGINEERING | II | 700 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

DEPARTMENT OF MATHEMATICS

| Events | Remarks | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|----------------------------|--|----------------------------|--------------|------|---|--------------------|-------------------------------------|----------|--|--------------------------|---|---------------|---|----------------------|---|-----------------|---|-------------|---|-------------|---|---------------|--|--|--------|--------------------------|
| FDP/Workshop/Conference | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">S.No</th> <th style="width: 20%;">Name of the Staff</th> <th style="width: 30%;">Program Title</th> <th style="width: 15%;">National/ International</th> <th style="width: 15%;">Organized by</th> <th style="width: 15%;">Date</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td>Dr.G.Purushothaman</td> <td rowspan="6" style="text-align: center;">Three days E-Workshop on R-Software</td> <td rowspan="6" style="text-align: center;">National</td> <td rowspan="6" style="text-align: center;">Dr.M.G.R. Educational and research institute</td> <td rowspan="6" style="text-align: center;">16-11-2022 to 18-11-2022</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Mr.S.M.Balaji</td> </tr> <tr> <td style="text-align: center;">3</td> <td>Mr.S.Manikandaprabhu</td> </tr> <tr> <td style="text-align: center;">4</td> <td>Dr.G.Meena Devi</td> </tr> <tr> <td style="text-align: center;">5</td> <td>Dr.K.Suresh</td> </tr> <tr> <td style="text-align: center;">6</td> <td>Mr.K.Suresh</td> </tr> <tr> <td style="text-align: center;">7</td> <td>Mr.Chellamani</td> <td>Linear Algebra for Computer Science and Machine Learning</td> <td></td> <td style="text-align: center;">NPTEL+</td> <td style="text-align: center;">19-11-2022 to 20-11-2022</td> </tr> </tbody> </table> | S.No | Name of the Staff | Program Title | National/ International | Organized by | Date | 1 | Dr.G.Purushothaman | Three days E-Workshop on R-Software | National | Dr.M.G.R. Educational and research institute | 16-11-2022 to 18-11-2022 | 2 | Mr.S.M.Balaji | 3 | Mr.S.Manikandaprabhu | 4 | Dr.G.Meena Devi | 5 | Dr.K.Suresh | 6 | Mr.K.Suresh | 7 | Mr.Chellamani | Linear Algebra for Computer Science and Machine Learning | | NPTEL+ | 19-11-2022 to 20-11-2022 |
| S.No | Name of the Staff | Program Title | National/ International | Organized by | Date | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Dr.G.Purushothaman | Three days E-Workshop on R-Software | National | Dr.M.G.R. Educational and research institute | 16-11-2022 to 18-11-2022 | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Mr.S.M.Balaji | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Mr.S.Manikandaprabhu | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Dr.G.Meena Devi | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Dr.K.Suresh | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Mr.K.Suresh | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Mr.Chellamani | Linear Algebra for Computer Science and Machine Learning | | NPTEL+ | 19-11-2022 to 20-11-2022 | | | | | | | | | | | | | | | | | | | | | | | | |
| Publications(only published) details | <ol style="list-style-type: none"> Agilan, P.; Juliet raja, K.;. Intuitionistic Fuzzy Stability of an Euler–Lagrange Symmetry Additive Functional Equation via Direct and Fixed Point Technique (FPT). Symmetry 2022, 14, 2454. https://doi.org/10.3390/sym14112454 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

DEPARTMENT OF SCIENCE

| Sl. No. | Events | Remarks |
|---------|---|---|
| 1 | FDP/Workshop/Conference | <p><i>NPTEL courses and FDP – June – Nov 2022</i></p> <ol style="list-style-type: none"> 1. Dr. S. Suresh - Physics of Renewable Energy Systems – Elite 2. Dr. V. Swarnalatha – Municipal Solid waste Management – Elite 3. Dr. P. Saravanan – Municipal Solid waste Management – Elite 4. Dr. N.R. Rajagopalan – Municipal Solid waste Management – Elite 5. Ms. S. Savitha – Municipal Solid waste Management – Elite 6. Ms. J. Sharmila – Municipal Solid waste Management – Elite 7. Dr. N.R. Rajagopalan – Public speaking – Elite / Silver / 1% Topper <p><i>Other FDP / Webinars</i></p> <ol style="list-style-type: none"> 1. Dr. P. Krishnan attended International Faculty Development Program on “Current scenario in advanced materials research and technology” conducted by “RajapalayamRaju's college - Rajapalayam,Tamilnadu” held from 14.11.22 to 18.11.22. 2. Dr. P. Krishnan attended International Faculty Development Program on “Recent Research in Materials Physics and Nano devices” conducted by “RajapalayamRaju's college - Rajapalayam,Tamilnadu” held from 21.11.22 to 25.11.22. 3. Dr. S. Suresh, Ms. J. Sharmila attended an International webinar on “Advanced Transparent Ceramic Materials for Defence Applications” conducted by “Bharat Institute of Engineering and Technology - Hyderabad - 501510” held on 26.11.22. 4. Dr. V. N. Nandini Devi, Dr. N. Punitha, Dr. P. Krishnan, Mr. S. Kaleel Mohamed Ibrahim, Dr. K. Sathesh Kumar, Dr. N.R. Rajagopalan, Dr. S.M. Prakash, Dr. S. Rama, Dr. K. Jayamoorthy, Dr. P. Saravanan, Dr. G. Murugan, Dr. A. Uma Devi, Ms. J. Sharmila, Dr. G. Sasikumar, Ms. S. Savitha, Dr. B. Subash, Dr. V. Swarnalatha, attended National webinar on “Nanomaterials and their applications” conducted by “Bharat Institute of Higher Education and Resesarch, Chennai - 600127” on 30.11.22 |
| 2 | Value added Courses/Courses other than VAC | Dr. V. N. Nandini Devi, Dr. S. Rama, Dr. S. Kiruba, Dr. V. Swarnalatha, Dr. P. Saravanan, Dr. A. Uma Devi, Dr. N.R. Rajagopalan, Ms. J. Sharmila, Ms. S. Savitha, Dr. K. Jayamoorthy, Dr. S.M. Prakash have successfully completed various multi-disciplinary Udeemy courses during the month of Nov 2022. |
| 3 | Competitions attended by students | - |
| 4 | Awards/Prize won by students / Staff | 1. Dr. N.R. Rajagopalan received 1% topper certificate in the NPTEL exam titled “Public speaking” held on 30.10.22. |

| | | |
|--|--|---|
| | | 2. Dr.K. Sathesh Kumar, Dr. P. Krishnan have been awarded CSIR NET lectureship. |
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