



**DEPARTMENT OF ELECTRONICS
WMO ARTS & SCIENCE COLLEGE**

“education and some more”

Affiliated to University of Calicut

(Aided by Govt. of Kerala)

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ANNUAL REPORT 2021-22

I. FACULTY DETAILS

Sl. No:	Name of the faculty	Date of Joining	Total teaching experience	Total teaching experience at this college	Highest qualification
1	Siby Joseph	18/12/1997	26 Years 10 Months	24 Years 10 Months	MSc
2	Dr. Nobert Thomas Pallath	10/02/1998	24 Years 6 Months	24 Years 6 Months	PhD
3	Abdul Rasheed	06/07/2012	10 Year 7 Months	10 Year 1 Month	MSc
4	Dr. Shameena V A	24/02/2021	1 year 1 month	1 year 1 month	PhD
5	Sidhik Raja	13/09/2021	10 Year 10 Months	10 Months	MSc, ME
6	Jithin S	20/12/2021	9 years 5 months	5 months	MSc
7	Neethu Mohan	20/12/2021	7 years 2 months	8 months	MSc
8	Raj Sha M M	07/06/2022	3 Years 3 Months	3 Months	MSc

II. STUDENT DETAILS

Sl.No:	Class	Total number of students	No of Male students	No. of Female students.	No. of PWD students	No.of SC students	No. of ST. students
1	D1 (2021 admission)	38	34	4	0	1	1
2	D2 (2020 Admission)	33	25	8	0	2	1
3	D3 (2019Admission)	29	18	11	0	4	2
4	I PG (2021 Admission)	15	1	14	0	0	0
5	II PG (2020 Admission)	10	1	9	0	0	0

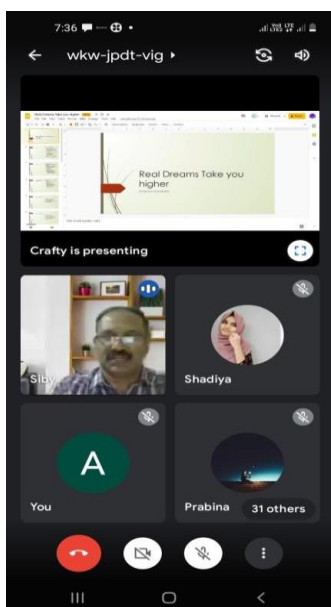
III. PROGRAMMES CONDUCTED

1. WEBINARS

Four numbers of webinars have been conducted by the Department of Electronics during the time of Covid-19 by experts in the field. These webinars helped in enhancing the exposure of research advances as well as employment areas to the students.

(a) “Real Dream Take You Higher”

An international webinar on “**Real Dream Take You Higher**” was conducted on 25/06/2021. Mr. Shameer Kandathil, an Alumnus of the department and the Chairman and MD of Delishus, Finland was the resource person. Thirty one students were participated.



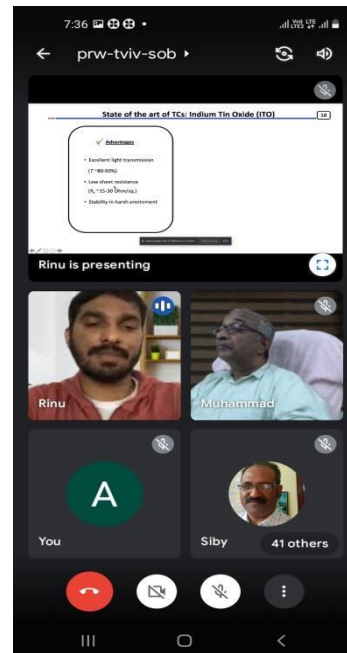
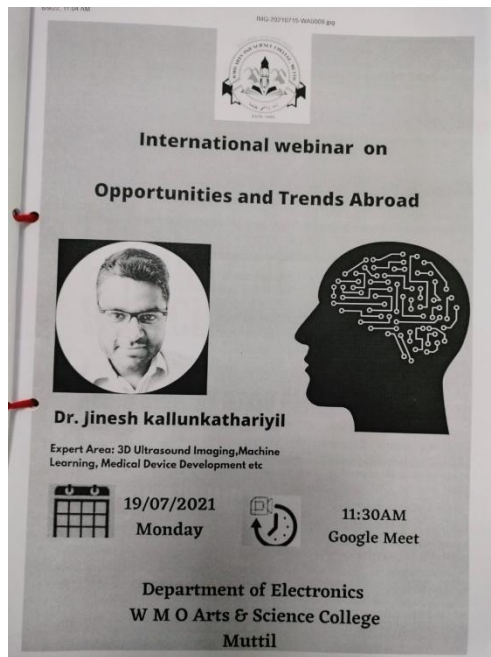
(b) What the heck is Biomedical Engineering

The department of Electronics organized an International Webinar on “**What the heck is Biomedical Engineering**” on 25/09/2021. An alumnus of the department Dr. Nikhila Mary Vijay presently working at Massey University, New Zealand handled the session. The webinar has given a detailed introduction to biomedical engineering, research trends, applications and career opportunities.

(c) Opportunities and Trends Abroad

The Department of Electronics organized an International Webinar on “**Opportunities and Trends Abroad**” on 19th July 2021. The I Webinar provided participants with valuable knowledge and guidance on pursuing opportunities in the global electronics industry. An alumnus of the department Dr. Jinesh Kallunkathariyil (founder Aison Technologies, Zurich) handled the session. **Dr. Jinesh Kallunkathariyil's** expertise and insights proved instrumental in helping participants understand the various avenues available to them abroad.

The event successfully inspired participants to explore international opportunities and broaden their horizons in the field of electronics.



(d) Nanotechnology - Current Trends and Opportunities

The Department of Electronics organized an International Webinar on "**Nanotechnology - Current Trends and Opportunities**" on 23rd June 2021, specifically tailored for BSc and MSc Electronics students. **Dr. Rinu Abraham M**, a distinguished expert in the field, served as the resource person for the event. He is also an esteemed alumnus of the department.

The webinar aimed to provide students with insights into the latest advancements and potential career opportunities in the field of nanotechnology. He shared his knowledge and experiences, discussing the current trends, research breakthroughs, and applications of nanotechnology. The webinar successfully enriched the understanding of the participants, inspiring them to explore the exciting prospects offered by nanotechnology in their academic and professional journeys.

IV. COLLABORATIONS AND LINKAGES

The Department of Electronics has collaborated with the CHMKM Government Arts and Science College, Tanur, and College of applied science, Meenangadi as a part of the skill development program for BSc Electronics. Two hands-on training programs were conducted at the Electronics lab of WMO College on 11/12/2021 and 14/12/2021.



40 students got trained in the use of LT Spice for Circuit Simulation and Ki CAD for PCB design. The participated students made PCBs, soldered, and tested them. In the inaugural address, Dr. T P Muhammed Fareed, Principal of the college congratulated the department for its initiatives in extending the services and sharing the resources to the society.

V. EXTENSION ACTIVITIES

(1)The Department of Electronics at W M O College organized a highly informative and engaging one-day workshop on Circuit Simulation and PCB Designing as an extension activity for CHMKM Govt. College in Tanur. The workshop, which took place on 14th December 2021, was inaugurated by the Principal, Dr. Muhammed Fareed T P, who emphasized the importance of practical knowledge in the field of electronics.



The event was graced by the presence of Dr. Ashkar Ali P, the Principal of CHMKM Govt. College, Tanur, who felicitated the participants and expressed his gratitude to the organizing team. The workshop featured renowned experts in the field, including Abdul Rasheed, and Muflik, who served as resource persons. Their expertise and guidance provided the participants with valuable insights into circuit simulation and PCB designing, empowering them with essential skills and knowledge to excel in their academic pursuits and future careers in electronics.



The Department of Electronics at W M O College conducted a one-day workshop on Circuit Simulation and PCB Designing as an extension activity for the students of College of Applied Science, Meenangadi. The workshop, which occurred on 11th December 2021, was inaugurated by Dr. Muhammed Fareed T P, the Principal of WMO Arts and Science college. . The workshop featured distinguished experts such as Abdul Rasheed and Muflik, who served as resource persons. Through their expertise and guidance, the participants gained valuable insights into circuit simulation and PCB designing, equipping them with essential skills and knowledge to thrive in their academic pursuits and future careers in electronics.

VI. CERTIFICATE COURSES

The Department of Electronics offered three certificate courses during the academic year 2021-2022. These courses aimed to provide participants with specialized knowledge and practical skills in various areas of electronics. The courses offered were: House Wiring Techniques, Circuit Simulation PCB Designing and Fabrication using Open-Source Software.

(a) House Wiring Techniques

The certificate course on **House Wiring Techniques** attracted 13 participants. The course focused on imparting knowledge and skills related to electrical wiring systems in residential buildings. Participants learned about the principles of safe and efficient house wiring, cable selection, wiring layout, and connection methods. Practical sessions were conducted to provide hands-on experience in installing electrical wiring and understanding safety regulations. The course successfully equipped participants with the necessary expertise to undertake house wiring projects.



(b) Circuit Simulation PCB Designing and Fabrication using Open Source

The certificate course on **Circuit Simulation PCB Designing and Fabrication using Open Source Software** was conducted twice (started on 24/11/2021 and 6/12/2021) in the academic year 2021-22. A total of 63 students participated in the course. This course aimed to enhance participants' understanding of circuit simulation, PCB designing, and fabrication using open-source software tools. The course covered topics such as circuit analysis, schematic capture, PCB layout design, component placement, and routing techniques. Practical sessions allowed participants to simulate circuits, design PCB layouts, and fabricate their own prototype boards. The course provided valuable hands-on experience and enabled participants to develop skills essential for electronics design and prototyping.



VII. STUDENT PROJECTS

<u>Sl.No</u> :	Title of the project	Programme UG/P G	Name of the student	Name of the supervisor	Institute of the supervisor
1	Evaluation Of DBS Wind Measurement Technique in Different Beam Configurations for a VHF Wind Profiler	PG	Athila Jasmin	Rakesh V	Cochin University Of Science And Technology
2	Aspect Sensitivity Measurement of Wind Profiler At 205 MHz Frequency Installed at Cochin Coastal Region	PG	JAMEELA K	Rakesh V	Cochin University Of Science And Technology

3	Performance Evaluation of 3 Beam and 4 Beam Method For Wind Estimation from Wind Profilers	PG	SHABNA U	Rakesh V	Cochin University Of Science And Technology
4	Study Of Refractive Index Structure Constant Variation Using 205 MHz Wind Profiler Installed at Cochin During Premonsoon	PG	SHADIYA K	Dr. Manoj M G	Cochin University Of Science And Technology
5	Study Of Refractive Index Structure Constant Variation Using 205 MHz Wind Profiler Installed at Cochin During Premonsoon and Monsoon	PG	SWARNA BABU K K	Dr. Manoj M G	Cochin University Of Science And Technology
6	Performance Analysis of Wind Profiling Radar with Different Tilting Angles	PG	SREEDEVI T P	Rakesh V	Cochin University Of Science And Technology
7	Study On the Variations in Refractive Index Structure Parameters During Post Monsoon and Winter Using GPS Radiosonde Datasets	PG	ANUSREE P M	Dr. Manoj M G	Cochin University Of Science And Technology
8	Animal Repeller	PG	ARUN M V	Mr. Abdul Rasheed	Cochin University Of Science And Technology
9	Obstacle Avoidance Mobile Robot Using arduino	PG	AYESHA NIHALA	Mr. Sibi Joseph	WMO Arts and Science College, Muttill
10	Variations in Refractive Index Structure Parameters During Pre Monsoon and	PG	ABIDA N P	Dr. Manoj M G	Cochin University Of Science And

	Monsoon Using GPS Radiosonde Datasets				Technology
11	Automatic Weather Monitoring and Soil Irrigation System	UG	Abhilash PM Apanaya Thampy Harikrishnan T P Marjana Farbin Muhammed Mufeed M	Mrs. Neethu Mohan	WMO Arts and Science College, Muttill
12	IoT based Forest Fire Detection System	UG	Ashique Assain P K Faisal Asif P Muhammed Ansil Muhammed Fayis O T AVMI Khaleel	Mrs. Neethu Mohan	WMO Arts and Science College, Muttill
13	Gas Leakage Detector	UG	Nishma Sherin	Dr. Nobert Thomas Pallath	WMO Arts and Science College, Muttill
14	Gas Leakage Detector	UG	Rinsha P T Shafna Sherin K Shimna Sherin K	Dr. Nobert Thomas Pallath	WMO Arts and Science College, Muttill
15	Design and fabrication of two wheeler security system	UG	Anas Mubarak Hani Hakkam Muhammed Muhammed Musthafa P Musthafa OS	Dr. Nobert Thomas Pallath	WMO Arts and Science College, Muttill
16	Seat Management System in Public Buses	UG	Muhammed Jasim N K	Dr. Nobert Thomas	WMO Arts and Science

			Shabil Ahmmed T Muhammed Afnas K P	Pallath	College, Muttil
17	Design and Development of Ultra Sound Radar Using Arduino	UG	Athulya Das Diya R B Lubaiba Jabin P P Rinsha V P	Mr. Abdul Rasheed	WMO Arts and Science College, Muttil
18	Water level indicator with automatic pumping system	UG	Fadhiya E Najil Umair Jessil Jasim Muhammed Waleed P T k	Mr. Abdul Rasheed	WMO Arts and Science College, Muttil

VIII. PUBLICATIONS OF FACULTY IN JOURNALS

<u>Sl. No</u> :	Name of the faculty	Title	Name of the journal	Date of publication	ISSN (If any)	Journal is in the UGC approved list (Yes/ NO)
1	Dr. Shameena V A	A Compact Four- Element Self Decoupled MIMO Antenna for Sub-6 GHz 5G Applications	2021 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting	04/12/2021	978-1- 7281- 4670-6	
2	Raj Sha M M	Laser ablated silicon nanoparticles with	Optik - International Journal for Light	August 2021	0030- 4026	

		selected solvents: A comparison of thermal diffusivity under different concentrations	and Electron Optics			
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IX. PUBLICATIONS OF FACULTY IN CONFERENCE PROCEEDINGS

<u>Sl.N</u> <u>o:</u>	Name of the faculty	Title	Name of the conference	Date of publication	ISSN (If any)
1	Dr. Shameena V A	A Compact Four- Element Self Decoupled MIMO Antenna for Sub-6 GHz 5G Applications	2021 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting (APS/URSI)	4/12/2021	ISBN:978-1- 7281-4670-6 (ONLINE) 978-1-7281- 4669-0 (USB)
2	Abdul Rasheed	A Review on Hazards of Mobile Radiation on Human Body	INFOFEST 2021, 11th Annual Interdisciplinary Symposium	31/12/2021	978-81- 955890-1-2
3	Dr. Shameena V A	5G Antenna Resign Review and Analysis	INFOFEST 2021, 11th Annual Interdisciplinary Symposium	31/12/2021	978-81- 955890-1-2
4	Sithikraja R	A Review on Radars and Aerospace Applications	INFOFEST 2021, 11th Annual Interdisciplinary Symposium	31/12/2021	978-81- 955890-1-2
5	Abdul Rasheed and Siby Joseph	A Review on Crack Prediction using Acoustic Emission (AE)	INFOFEST 2021, 11th Annual Interdisciplinary Symposium	31/12/2021	978-81- 955890-1-2
6	Dr Nobert Thomas	Face Recognition System - A Comprehensive	INFOFEST 2021, 11th Annual Interdisciplinary	30/12/2021	978-81- 955890-1-2

	Pallath	Review	Symposium		
7	Sithikraja R	Intelligent Traffic light control system - A review	INFOFEST 2021, 11th Annual Interdisciplinary Symposium	31/12/2021	978-81-955890-1-2
8	Dr Nobert Thomas Pallath	A review on breast cancer detection using Artificial Intelligence	INFOFEST 2021, 11th Annual Interdisciplinary Symposium	31/12/2021	978-81-955890-1-2
9	Siby Joseph	Retrodirective cross-eye jamming A review	INFOFEST 2021, 11th Annual Interdisciplinary Symposium	31/12/2021	978-81-955890-1-2
10	Dr. Shameena V A	A Review of Wearable Antennasfor Biomedical Applications	INFOFEST 2021, 11th Annual Interdisciplinary Symposium	31/12/2021	978-81-955890-1-2

X. BOOKS PUBLISHED

Sl.No:	Name of the faculty	Title of the book/ Chapter	ISBN	Date of publication
1	Abdul Rasheed	Microcontroller and Interfacing	978-93-92143-08-3	December 2021
2	Siby Joseph	Microcontroller and Interfacing	978-93-92143-08-3	December 2021
3	Dr. Nobert Thomas Pallath	Electronic Circuits	978-93-92143-71-7	2021

FACULTY PARTICIPATION IN SEMINARS/ WORKSHOPS

<u>Sl.No:</u>	Name of the faculty	Name of the seminar/ Workshop/ conference	Participant/ Presented paper/ Resource Person	Date of the programme	Geographical coverage (National/ International/Regional)
1	Dr. Shameena V A	IEEE International Symposium on Antennas and Propagation and USNC - URSI Radio Science Meeting (AP-S/URSI), Singapore	Presented Paper	04/12/2021 to 10/12/2021	International

XI. FACULTY PARTICIPATION IN FACULTY DEVELOPMENT PROGRAMME

<u>Sl.No:</u>	Name of the faculty	Name of the course	Date of commencement of the programme	Date of completion of the programme
1	Abdul Rasheed	Managing Online Courses and Co - creating MOOCS (Level 2)	02/06/2021	16/06/2021
2	Abdul Rasheed	Artificial Intelligence	27/12/2021	30/12/2021
3	Sithikraja R	National level short term course on academic and research report writing	03/01/2022	08/01/2022
4	Abdul Rasheed	LaTeX101x:LaTeX for Students, Engineers and Scientists	02/08/2021	21/11/2021
5	Abdul Rasheed	Teacher Professional Development Program on Mathematical Modeling using Technology - enabled and student centered learning systems	18/11/2021	19/11/2021

6	R	Sithikraja Teacher Professional Development Program on Mathematical Modeling using Technology - enabled and student centered learning systems	19/11/2021	20/11/2021
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XII. COLLABORATING ACTIVITIES FOR RESEARCH/ FACULTY EXCHANGE/ STUDENT EXCHANGE/ INTERNSHIP ETC

<u>Sl.No</u> :	Name of the faculty/ student	Name of the institute with which collaborated	Nature of collaboration	Date from -	Date To
1	Abdul Rasheed	SNDP YOGAM ARTS & SCIENCE COLLEGE,PULPALLY	MSc Physics - Academic Project Guidance	2021	2022
2	Abdul Rasheed	Department of Physics, WMO Arts and Science College	MSc Physics - Academic Project Guidance	2021	2022
3	Students	Model College Meenangadi	Workshop	11/12/2021	11/12/2021
4	Students	Government College Tanur	Workshop	14/12/2021	14/12/2021

XIII. BRIDGE COURSES

<u>Sl.No</u>	Title of the course or Topic	Date of starting	Duration in Days	Number of students benefitted	Any external agency involved ?
1	Bridge Course for First Year B Sc	2-November 2021	5	39	No
2	Bridge Course for First Year M Sc	06/12/2021	5	10	No

XIV. CAREER GUIDANCE PROGRAMMES/ COACHING FOR COMPETITIVE EXAMINATIONS ETC. CONDUCTED

<u>Sl.No</u>	Title of the course or Topic	Date of starting	Duration in Days	Number of students benefitted	Any external agency involved ?
1	PG Entrance Coaching	03/01/2022	3	10	No
2	Career Orientation Program	07/06/2021	10	25	No

XV. NUMBER OF STUDENTS WHO GOT PLACEMENT

<u>Sl.No</u>	Name of the student	Job	Public/ Private sector	average salary	Date of placement(If available)
1	Abida N P	Application Engineer, 3D Engineering Automation LLP	Private	2.64 LPA	16/08/2022
2	Swarna Babu	System developer, Vierow Systems Pvt Ltd ,	Private	2.4 LPA	23/08/2022
3	Muhammed Mufeed	Lab Assistant, WMO IG Arts and Science College, Koolivayal	Private		
4	Arun M V	Hand Holding Supporting Staff, e Health Kerala, State Digital Health Mission	Private	1.2LPA	16/05/2022
5	Shadiya	Trainer, Vertex Computer Education	Private	1.2LPA	
6	Anusree	Trainer, Vertex Computer Education	Private	1.2LPA	
7	Swarna Babu	Technical support ,Doctosmart Enterprise Pvt Ltd.	Private	1.44 LPA	29/09/2022
8	Muhammed Musthafa O S	Service Engineer , Samsung	Private		

STUDENT PROGRESSION TO HIGHER STUDIES

Sl.No	Name of the student	Programme from which promoted	New Programme	college/ University/ Institute where the student have joined
1	Diya R B	BSc Electronics	MSc Electronics	Cochin University of Science and Technology
2	Ajith K R	BSc Electronics	MSc Electronics	Cochin University of Science and Technology
3	Athullya Das	BSc Electronics	MSc Electronics	WMO Arts And Science College

XVI. STUDENTS APPEARED/ QUALIFIED IN JAM/NET/ CIVIL SERVICE EXAMINATIONS

Sl.No	Name of the student	Examination appeared	Whether qualified or not
1	Aadarsh N	NCC Certificate B	YES
2	Muhammed Amjath K	NCC Certificate B	YES
3	Nihal Nazer	NCC Certificate B	YES
4	Shuhaib T U	NCC Certificate B	YES
5	Nandhana S Sasikumar	NCC Certificate B	YES
6	Anandhu C R	NCC Certificate B	YES
7	Muhammed Amjath K	Army Attachment Camp	YES
8	Anandhu C R	Army Attachment Camp	YES
9	Shuhaib T U	Army Attachment Camp	YES

XVII. ACHIEVEMENTS OF STUDENTS IN ARTS/ SPORTS

Sl. no:	Name of the student	Class	Prize/ Award/ Achievement	University level/ State level/ National/ international/ college
1	RISHVANA JASMIN	I M.Sc	3RD PRIZE IN SANSHOU	UNIVERSITY LEVEL
2	ANJALA THEHSIN	I M.Sc	3RD PRIZE IN SANSHOU	UNIVERSITY LEVEL

XVIII. CONTRIBUTIONS FROM ALUMNI

Sl. no:	Nature of the activity	Contribution received	Remarks If any
1	Webinar on Real Dream Take You Higher	Resource Person	Shameer Kandathil, Chairman and MD Delishus Finland
2	International Webinar on " What the heck is Biomedical Engineering"	Resource Person	Dr.Nikhila Mary Vijay, Massey University New Zealand
3	International Webinar on Opportunities and Trends Abroad	Resource Person	Dr. Jinesh Kallunkathariyil
4	International Webinar on Nanotechnology -Current Trends and Opportunity	Resource Person	Dr. Rinu Abraham M
5	Books Contribution	33 books	Abhijith and Vaisak



Our alumna conducted four webinars during this period. These webinars proved to be invaluable resources, providing valuable insights and fostering a sense of knowledge exchange within the college community.

Abhijith and Vaisak, alumni from the 2015-2018 batch of the Department of Electronics at WMO College, have made a commendable contribution to their alma mater. Their dedication to enhancing the academic resources available to current students is evident through their generous donation of 33 books to the department library. The students and faculty are immensely grateful for Abhijith and Vaisak's thoughtful contribution, which will undoubtedly benefit countless individuals for years to come.



Our 2nd year (2020-22) batch of students contribute a wall clock for the department.

XIX. UNIVERSITY RESULT

Programme	No. of Students Appeared	No. of Students Passed	Pass Percentage
BSc Electronics (2020 Admission)	30	13	43