VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA
Affiliated to APJ Abdul Kalam Technological University
Approved by AICTE ◆ ISO 9001:2015 Certified
Accredited by Institution of Engineers (India), NBA, NAAC

NATIONAL BOARD of ACCREDITATION
NBA: B.Tech CE,CSE, EEE & ME

NAAC ACCREDITED

VJ/Proceedings/21

02.03.2017

Proceedings

Sub: Constitution of Research Cell- Regarding

The following are nominated as members of the Research Cell of Vimal Jyothi Engineering College, with effect from 02.03.2017

1. Dr. Benny Joseph – Principal, VJEC – Chairperson
2. Dr.G.Justin Sunil Dhas- Professor, EEE- Convenor
3. Dr.Vra. Sathappan - Professor, CE- Member
4. Dr.V.Chandrasekar- Professor, CSE- Member
5. Dr.V.Sampath Kumar- Professor, AEI- Member
6. Dr.R.Senthilkumar- Professor, AEI- Member
7. Dr.P.Sridharan- Asso.Professor, ME- Member
8. Dr.I.Selvamani – Asso.Professor, ECE- Member

Principal

Distribution

1. The Manager
2. The Principal
3. All HOD's
4. Members concerned

Signature Not Verified
Principal.VJEC

Ph: 0460 2212240, 2213399 E-mail: office@vjec.ac.in Website: www.vjec.ac.in

Vimal Jyothi Engineering College

Chemperi

Research Cell

Venue: Board Room

Date: 17.03.2017

Minutes of Meeting

The following points are discussed in the meeting

1. Research projects

Identify various funding agencies and disseminating the information. Motivate the students and faculty members to identify worthy projects and to prepare proposals for funding.

Prepare an interdisciplinary project and to submit for funding to external funding agency.

2. Publications

To start International journals the departments with all formalities (eg: ISBN No) .To motivate the faculty members to publish their research papers in reputed free journals. To motivate the faculty members to publish academic books through reputed publication houses.

3. Consultancy

Establishing consultancy centres in all departments by utilising the available resources. Eg.Dead weight tester, CNC machines etc..,

4. Patents

To Identify and encourage worthy proposals from all departments. While applying for patents concentrate more on quality of the proposal.

5. Industry Institution linkage

Bringing industry based projects in individual departments and to establish of industry based laboratories like Bosch Rexroth, Siemens, Danfoss etc..,

5. Innovation and best practices

To Establish TBI (Technology Business Incubator), one time catch up grant, Wipro mission 10x, Implement project based learning.

It has been decided to share the above responsibilities among the members.

Sl No	Members	Responsibility
1	Dr.VRA. Saathappan	Innovation and best practices
2	Dr.V.Chandrasekar	Consultancy
3	Dr. V.Sampath Kumar	Research projects
4	Dr. R.Senthilkumar	Patents
5	Dr. P.Sridharan	Industry Institution linkage
6	Dr. I.Selvamani	Publications

Dr.G.Justin Sunil Dhas
(Convenor-Research Cell)

Vimal Jyothi Engineering College
Chemperi
Research Cell

Venue: Board Room

Date: 28.03.2017

Minutes of Meeting

The following points are discussed in the meeting

I. Research projects (Dr. V.Sampath Kumar)

1. It has been decided to go ahead with "Research professional" for total funding awareness and to try the free trial for one year.

2. Identify the funding agencies which are not insisting NAAC or NBA accreditation , prepare and submit project proposals to those agencies.

II. Publications (Dr. I.Selvamani)

1. Identify the subject experts from the departments and publish books through leading publishing houses.

2. Motivate the students to convert their projects into papers and publish them in reputed journals.

3. Starting international journals in the departments will be decided in the subsequent meeting.

4. The target date is April 20th, 2017.

III. Consultancy (Dr.V.Chandrasekar)

1. Identify the infrastructure and experts available in the departments for consultancy, also to identify right companies to accomplish.

2. Identify the feasible projects that can be carried out with the help of faculty and students.

3. The target date is 30th June, 2017.

IV. Patents (Dr. R.Senthilkumar)

1. Discuss with the departments to encourage students' to file patents for their inventions.

2. In order to identify and file worthy patents, the inventors should present their findings before the scrutinizing committee.

3. To maintain the database and follow up the status of the patents filed previously.

4. The target date is 20th April, 2017.

V. Industry Institution linkage (Dr. P.Sridharan)

1. Prepare a high quality brochure and contact the leading companies for industry based projects and to establish industry based laboratories in VJEC.
2. The target date is 5th May, 2017.

VI. Innovation and best practices (Dr.VRA. Saathappan)

Will be discussed in the subsequent meeting.

Dr.G.Justin Sunil Dhas
Convenor-Research Cell
VJEC

Vimal Jyothi Engineering College
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Research cell co-ordinators meeting

Date: 28.03.2017
Time: 3.00PM

Venue: Board Room

Agenda of the meeting

- Funding awareness (**Research Professional**)
- Setting smart goals

Members presented

Sl No	Name	Signature
1	Dr.VRA. Santhappan (CE) - Coordinator	28/3/17
2	Dr.V.Chandrasekar (CSE) - Coordinator	
3	Dr. V.Sampath Kumar (AIE) - Coordinator	
4	Dr. R.SenthilKumar (EEE) - Coordinator	28/3/17
5	Dr. P.Sridharan (ME) - Coordinator	28/3/17
6	Dr. I.Selvamani (ECE) - Coordinator	28/3/17
7	Dr.G.Justin Sunil Dhas (EEE) - Convenor	

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Research Cell Meeting on 24/07/2018

Minutes of meeting

The research cell meeting was conducted on 24.7.2018 at 2.00 PM, Board room

1.The following faculty members has presented the Contribution target for the academic year (2018-19)

No	Name of the faculty	Department	No of Publications	No of Funding Proposals	Value of funding Proposals
1	Ms.Neena VV	CS	1	1	5Lakhs
2	Mr.Dhanoj M	EI	2	1	10Lakhs
3	Ms.Vidya SS	CS	1	1	5Lakhs
4	Ms.Jeethu	CS	2	1	10Lakhs
5	Dr.Christopher Ezhil Singh	ME	4	2	50Lakhs

2.The details of faculty members attended and presented the present status of the publications and funding proposals are attached.

Dr.G.Justin Sunil Dhas
Convener-Research Cell

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Vimal Jyothi Engineering College

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Faculty Holding/Doing Ph.D, Contribution Target for 2018-19

(Follow up meeting on 24.7.2018)

Sl.No	Name of the Faculty	Department	Status of Research/External Projects/Publications	Signature
1	Dr.Benny Joseph	Principal		
2	Mr.Raju K K	ME	Two papers have been send for publication, waiting for reply	
3	Mr. Biju Mathew	CE		
4	Mr. Jayesh George	EC		
5	Dr Manoj V Thomas	CS	Attempts are being made to achieve the targets.	
6	Mr.Vinod J Thomas	EC	Review of previous works in progress	24/7/18
7	Ms. Reema Mathew	EI	FIST funding applied, Paper work going on	24/7/18
8	Ms.Roshni T V	EC	Patent work is in process	
9	Dr Anto Sahayadhas	EC	Paper publication is in process	

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10	Mr. Manoj K.C	EC	Literature Review in progress	
11	Dr. P Sridharan	ME	1. Two paper Got accepted for publication under Scopus index. 2. KSTCE students Project sent for approval will be started soon	24/3/16.
12	Dr. G.Justin Sunil Dhas	EE	1. One Paper Selected for Publication adunder SCI 2. Funding Proposal in Progress.	
13	Mr. Sarin CR	EE		
14	Dr.R. Senthilkumar	EE	Paper work is going on.	
15	Dr G. Glan Devadhas	EI	Target Yet to be reached. Research work on progress	
16	Dr. V.Sampathkumar	EI	Submitted a Journal (SCI) Submitted Two Proposals 1. KSCSTE 2. EMC - Government of Kerala	
17	Ms.Teena George	EE	Journal writing in progress will submit within 1 month	
18	Ms.Jerrin Yomas	EC	in progress	
19	Dr.Vra Saathappan	CE		
20	Dr.Shikha S	CE	1 Paper in progress → 1 proposal in progress	

21	Dr.Umesh Sundar	ME		Dhanoj
22	Mr.Dhanoj M	EI	Two papers published 1 project proposal – 10 lakhs	
23	Ms.Neena V V	CS	Need to publish 1 paper within this academic year.	
24	Ms.Vidhya S S	CS	Need to publish 1 paper worth this academic year	Jaya
25	Anoop B K	EC	One paper published	Anp
26	Ms.Jeethu V. Devasia	CS	2 papers need to be published ~~for~~ during this academic year. Estimated 100 lakhs as funding proposal.	
27	Dr.Christopher Ebi Singh	ME	Planning to Submit Project proposal to ISRO Respond.	

Vimal Jyothi Engineering College

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Research Cell Meeting on 04/12/2018

Minutes of meeting

The research cell meeting was conducted on 04/12/2018 at 2.00 P.M, Board room

Members Presented

1. Dr. Benny Joseph - Chairperson
   Principal/VJEC
2. Mr. Raju K K
   HOD/ME
3. Mr. Vinod J Thomas
   AP/EC
4. Mr.Manoj K.C
   AP/EEE
5. Dr.P.Sridharan
   Prof/ME
6. Dr.G.Justin Sunil Dhas
   Prof/EE
7. Dr.R.Senthil Kumar
   Prof/EEE
8. Mr.Sarin CR
   AP/EEE
9. Dr.V.SampathKumar
   Prof/EI
10. Dr.Vra Saathappan
    Prof/CE
11. Dr.Umesh Sundar
    Prof/ME
12. Ms.Neena VV
    AP/CS
13. Ms.Vidya S S
    AP/CS
14. Mr. Anoop B K
    AP/EC
15. Ms.Jeethu V Devasia
    AP/CS
16. Dr.S.Christopher Ezhil Singh
    Prof/ME

Dr. Benny Joseph, Principal, VJEC, Chaired the meeting and following points are discussed.

1. Discussed about the current status of research activities on funding proposals submitted and publication of research articles by the faculty members holding PhD and doing PhD.
2. Principal encouraged the faculty members doing PhD to publish their recent literature survey in reputed journals.
3. Principal informed about the financial assistance granted for research projects by various funding agencies.
4. Discussed about funding process of ANERT, BIRAC, ERASMUS, DDYGKY.

5. Discussed about the funds received from CERD under RSM and Students projects.

[Dr.G.Justin Sunil Dhas]

Convenor-Research Cell, VJEC

Dr.Benny Joseph

Principal, VJEC

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Research Group (Faculty Holding/Doing Ph.D)

(meeting on 04.12.2018)

Sl.No	Name of the Faculty	Department	Signature
1	Dr.Benny Joseph	Principal	
2	Mr.Raju K K	ME	4/12
3	Mr. Biju Mathew	CE	Academic work.
4	Mr. Jayesh George	EC	AB
5	Dr Manoj V Thomas	CS	Academic Work (AB)
6	Mr.Vinod J Thomas	EC	4/12/18
7	Ms. Reema Mathew	EI	Academic work (AB)
8	Ms.Roshni T V	EC	Academic Work (AB)
9	Dr Anto Sahayadhas	EC	AB
10	Mr. Manoj K.C	EC	
11	Dr. P Sridharan	ME	4/12/18
12	Dr. G.Justin Sunil Dhas	EE	
13	Dr.R. Senthilkumar	EE	Re-Submitted 4/12/18
14	Mr. Sarin CR	EE	
15	Dr G. Glan Devadhas	EI	AB
16	Dr. V.Sampathkumar	EI	V.
17	Ms.Teena George	EE	AB
18	Ms.Jerrin Yomas	EC	AB
19	Dr.Vra Saathappan	CE	

Dr.Shikha S	CE	AB
Dr.Umesh Sundar	ME	7/12/18
Mr.Dhanoj M	EI	AB (Intimated through Mail)
Ms.Neena V V	CS	
Ms.Vidhya S S	CS	
Anoop B K	EC	ABK.
Ms.Jeethu V. Devasia	CS	
Dr.S.Christopher Ezhil Singh	ME	
Ms.Anusha Chacko	EC	AB

Vimal Jyothi Engineering College

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Research Cell meeting on 19.02.2019

Minutes of meeting

The research cell meeting of VJEC was conducted on 19/02/2019 at 12.15 PM in Principal sir's Chamber.

Members Presented

1. Dr.Benny Joseph - Chairperson
   Principal/VJEC

2. Dr.Roshni T V
   HOD/ECE

3. Dr.Vra Saathappan
   Prof/CE

4. Dr.Umesh Sundar
   Prof/ME

5. Dr. P Sridharan
   Prof/ME

6. Dr.R. Senthilkumar
   Prof/EE

7. Dr. G.Justin Sunil Dhas
   Prof/EE

8. Ms.Jerrin Yomas
   AP/EC

9. Mr. Jayesh George
   AP/EC

10. Mr. Sarin CR
    AP/EE

11. Mr.Vinod J Thomas
    AP/EC

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Principal.VJEC

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12. Ms.Anusha Chacko
AP/EC

Dr.Benny Joseph, Principal,VJEC chaired the meeting and following points are discussed

1. Discussed about the constitution of department wise research committee headed by the HODs and the members from the research cell.

2. For the next academic year, it is proposed that all the faculty members have to publish/apply

(i). Minimum one National/International conference or Journal.

(ii). One project proposal with a minimum value of Rs 50,000/-.

(iii). One patent/Consultancy with the value of Rs 25,000/- (Incase of any difficulty with patent and consultancy,it may be replaced with publication/project proposal.)

3. The maximum number of collaborators in publication and project Proposal is limited to three.

4. Discussed about the status of target achieved for the current academic year.

Dr.Benny Joseph
Principal,VJEC

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Principal.VJEC

Vimal Jyothi Engineering College

Chemperi-670632

Research cell meeting on 19/02/2019

Members presented

Sl.No	Name of the Faculty	Department	Signature
1	Dr.Benny Joseph	Principal	
2	Dr Manoj V Thomas	CS	A
3	Dr.Roshni T V	EC	
4	Mr.Raju K K	ME	A
5	Mr. Biju Mathew	CE	A
6	Ms. Reema Mathew	EI	A
7	Dr D.Anto Sahayadhas	EC	A
8	Dr G. Glan Devadhas	EI	A
9	Dr. V.Sampathkumar	EI	A
10	Dr.Vra Saathappan	CE	
11	Dr.Shikha S	CE	A
12	Dr.Umesh Sundar	ME	19/2/19
13	Dr. P Sridharan	ME	19/2/2019
14	Dr.R. Senthilkumar	EE	19/2/19

Dr.S.Christopher Ezhil Singh	ME	A
Dr. G.Justin Sunil Dhas	EE	
Ms.Teena George	EE	A
Ms.Jerrin Yomas	EC	
Ms.Jeethu Devasia	CS	A
Mr.Jayesh George	ECE	
Mr.Sarin CR	EE	
Mr.Dhanoj M	EI	A
Ms.Neena V V	CS	A
Ms.Vidhya S S	CS	A
Anoop B K	EC	A
Vinod J Thomas	EC	
Mr.Manoj KC	EC	A
3 Anusha Chacko	ECE	

12/4/19

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Principal.VJEC

Vimal Jyothi Engineering College

Chemperi- 670632

Research Cell meeting on 19.03.2019

Minutes of meeting

The research cell meeting of VJEC was conducted on 19/03/2019 at 12.15 PM in Board room.

Members Presented

1. Dr.Benny Joseph - Chairperson
   Principal/VJEC

2. Dr.Roshni T V
   HOD/ECE

3. Dr.Vra Saathappan
   Prof/CE

4. Dr.Umesh Sundar
   Prof/ME

5. Dr. P Sridharan
   Asso.Prof/ME

6. Dr.R. Senthilkumar
   Prof/EE

7. Dr. G.Justin Sunil Dhas
   Prof/EE

8. Dr.D.Anto Sahayadhas
   Prof/EC

9. Mr. Jayesh George
   AP/EC

10. Mr. Sarin CR
    AP/EE

11. Dr.G.Glan Devadhas
    Prof/EI

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12. Dr.V.Sampathkumar
    Prof/EI

13. Dr.Shika S
    Asso.Prof/CE

14. Ms.Jethu Devasia
    AP/CS

15. Mr. Dhanoj M
    AP/EI

16. Ms.Vidhya S S
    AP/CS

17. Mr.Anoop B K
    AP/EC

18. Mr.Manoj K C
    AP/EC

19. Ms.Divya B
    AP/CS

Dr.Benny Joseph, Principal,VJEC chaired the meeting and following points are discussed

1. Discussed and decided that HODs shall allocate budget for research activities from the next academic year onwards.

2. It is proposed to have licenced plagiarism checking software like , Turnitin/Urkund/Grammarlay, Also to request KTU for providing Turnitin plagiarism checker for their research scholars from VJEC.

3. The faculty and students are asked to submit their research papers in ICICICT-2019. Internal authors can avail a discounted registration fee of Rs 4000/-.

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Principal.VJEC

4. The departments are encouraged to participate in Unnat Bharat Abhiyan under product development scheme.

5. Twenty five candidates from VJEC have registered in the Startup Idea Fest Conducted by Kerala Startup Mission.The total prize money is Rs.8,00000/-.

6. Faculty members are asked to encourage the students to participate in the Idea Fest Contest before the deadline (10th April, 2019).

19/9/19

Dr.Benny Joseph
Principal,VJEC

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VJEC Research Group members meeting on 19.03.2019

Attendance

Sl.No	Name of the Faculty	Department	Signature
1	Dr.Benny Joseph	Principal	
2	Dr Manoj V Thomas	CS	A
3	Dr.Roshni T V	EC	
4	Mr.Raju K K	ME	A
5	Mr. Biju Mathew	CE	A (Informed in advance)
6	Ms. Reema Mathew	EI	A
7	Dr D.Anto Sahayadhas	EC	
8	Dr G. Glan Devadhas	EI	
9	Dr. V.Sampathkumar	EI	
10	Dr.Vra Saathappan	CE	
11	Dr.Shikha S	CE	19/3/19
12	Dr.Umesh Sundar	ME	19/3/19
13	Dr. P Sridharan	ME	19/3/19

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14	Dr. G.Justin Sunil Dhas	EE	
15	Dr.R. Senthilkumar	EE	19/3/19.
16	Dr.S.Christopher Ezhil Singh	ME	A
17	Ms.Teena George	EE	A
18	Ms.Jerrin Yomas	EC	A
19	Ms.Jeethu Devasia	CS	
20	Mr.Jayesh George	ECE	
21	Mr.Sarin CR	EE	
22	Mr.Dhanoj M	EI	
23	Ms.Neena V V	CS	A
24	Ms.Vidhya S S	CS	
25	Anoop B K	EC	
26	Vinod J Thomas	EC	A
27	Mr.Manoj KC	EC	
28	Ms. Anusha Chacko	EC	A
29	Ms Divya B	CS	

Vimal Jyothi Engineering College

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Research Cell meeting on 26.04.2019

Minutes of meeting

The research cell meeting of VJEC is conducted on 26/04/2019 at 12.15 PM in Board room.

Members Presented

1. Dr.Benny Joseph - Chairperson
   Principal/VJEC
2. Dr Manoj V Thomas
   HOD/CS
3. Ms. Reema Mathew
   HOD/EI
4. Dr.Vra Saathappan
   Prof/CE
5. Dr.G.Glan Devadhas
   Prof/EI
6. Dr.Umesh Sundar
   Prof/ME
7. Dr.R. Senthilkumar
   Prof/EE
8. Dr. G.Justin Sunil Dhas
   Prof/EE
9. Dr.D.Anto Sahayadhas
   Prof/EC
10. Dr.Shikha S
    Asso.Prof/CE
11. Dr.S.Christopher Ezhil Singh
    Prof/ME

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Principal.VJEC

12. Mr. Jayesh George
AP/EC

13. Dr.V.Sampathkumar
Prof/EI

14. Mr. Dhanoj M
AP/EI

15. Ms.Neena V V
AP/CS

16. Mr.Anoop B K
AP/EC

17. Mr.Manoj K C
AP/EC

18. Ms.Divya B
AP/CS

19. Vinod J Thomas
AP/EC

Dr.Benny Joseph, Principal,VJEC chaired the meeting and following points are discussed

1. Inorder to increase the number of research publications, it is mandatory that all the faculty members of VJEC should publish minimum one paper in the scopus indexed Journal during the next academic year.

2. Discussed and decided that while publishing papers equal weightage shall be given to first / second or corresponding authors.Other authors are not take into account.

3. During the next academic year, faculty members of VJEC with Ph.D. should apply for a minimum value of Rs.30,00000/- (Rupees Thirty Lakhs) towards Research/Seminar/Travel grant funding.It may be applied through three different agencies.

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4. Faculty members with one year completion of their Ph.D registration should apply for a minimum value of Rs.500000/-(Rupees Five lakhs) towards Research/Seminar/Travel grant funding.

5. All the Departments are encouraged to conduct National/International Seminar or Conferences.

6. It is decided to publish the findings as papers of all the students projects.

29/4/19

Dr.Benny Joseph
Principal,VJEC

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2018-19							
S.No	Title of paper	Name of the authors	Department	Name of journal	Year	ISSN number	Publication type
1	A Feasibility Study On C-RAN	Dr. Anto Sahaya Dhas	ECE	MAT Journals Pvt. Ltd.	2018		–
2	Micro-calcification Detection In Digital Mammogram	Jayesh George	ECE	MAT Journals Pvt. Ltd.	2018		–
3	An Improved classification system for brain tumours using wavelet transfor and neural network	Dr. Anto Sahaya Dhas	ECE	University of the West Indies	2018	2309-5830 (ISSN)	SCIE
4	Epilepsy deteection based on EEG signals	Adarsh k S	ECE	MAT Journals Pvt. Ltd.	2018		–
5	A Critical analysis on the evolution in the E-payment system ,security risk threats and vulnerability	Jerrin Yomas	ECE	FOUNDATION OF COMPUTER SCIENCE	2018	2394-4714(ISSN)	–
6	Metamaterial patch antenna with PBG structure to reduce surface wave	Manoj K C	ECE	Institute for Technology and Research, Bhubaneswar, India	2018	2320-2084	–
7	ELM Based Detection of Microcalcification in Mammogram using GLCM Features	Jayesh George	ECE	WILEY	2018		SCOPUS
8	A Hybridized ELM for Automatic Micro Calcification Detection in Mammogram Images Based on Multi-Scale Features	Jayesh George Melekoodappattu	ECE	SPRINGER	2018		SCIE & SCOPUS
9	Emerging Techniques and Trends in DNA Cryptography	Ms. Akhila Mathew	CSE	STM Journal	2019	ISSN: 2229-6964	UGC
10	Survey on Static and Dynamic Hand Gesture Recognition Techniques	Ms.Keerthijith P	CSE	IJSR	2019	2319-7064	UGC
11	ELM Based Detection of Microcalcification in Mammogram using GLCM Features	Mr.Jayesh George	ECE	International Journal of Recent Technology and Engineering	2019	2277-3878	SCOPUS

12	Experimental analysis and effects of Gasoline as an additive in Compression Ignition Engine	Appu Kurian, Rameshan K.P, Ryne P.M	ME	IJITEE	2019	ISSN: 2278-3075,	SCOPUS
13	Modeling of a Gasifier Using Cycle-Tempo for SOFC Applications	Dr.John T D	ME	AIP Conference Proceeding	2019	doi.org/10.1063/1.5120206	SCOPUS
14	Biomass Densification of Ahl Powder Mechanical Properties Using RSM	Dr.Christopher Ezhil singh S,	ME	Interciencia Journal	2019	ISSN:0378-1844	UGC
15	Thermal Degradation On Biomass Briquettes Of Artocarphus Heterophyllus Leaf Powder	Dr.Christopher Ezhil singh S,	ME	Interciencia Journal	2019	ISSN:0378-1844	UGC
16	Grid frequency regulation by hybrid system using energy storage system	Dr.P.Sridharan	ME	Indian Journal of Power and River Valley Development	2019	ISSN: 0019-5537	UGC
17	A Hybridized ELM for Automatic Micro Calcification Detection in Mammogram Images Based on Multi-Scale Features	Mr.Jayesh George	ECE	Journal of Medical Systems	2019	1573-689X	SCIE
18	Automatic diagnosis of diabetic retinopathy with the aid of adaptive average filtering with optimized deep convolutional neural network	Dr.Roshini T V , Ms.Reema Mathew	ECE	International Journal of imaging and system technology	2019	DOI: 10.1002/ima.22419DOI: 1	SCIE
19	A novel design for PV integrated buck converter using MPPT and sub MPPT	Dr.G.Glan Devadhas	AEI	Journal of Advanced Research in Dynamical and Control SystemsVolume 10, Issue 8, Pages 28 - 36, 2018	2018		
20	Analysis of ph neutralization using ANFIS based queuing algorithm	Dr.G.Glan Devadhas	AEI	Journal of Advanced Research in Dynamical and Control SystemsVolume 11, Issue 6 Special Issue, Pages 1610 - 1617, 2019	2019		
21	Fractional order controller design for SEPIC converter using metaheuristic algorithm	Dr.R.Senthilkumar, Dr.G.Justin Sunil Dhas	EEE	Journal of Intelligent & Fuzzy System	2019	1064-1246	SCIE

22	Watermarking Schemes for High Security with Applications and Attacks: Research Challenges and Open Issues,	Dr.G.Glan Devadhas	AEI	International Journal of Recent Technology and Engineering (IJRTE)	2019	2277-3878	SCOPUS
23	Corrosion rate of Al-Si Alloy Reinforced with B4C Nanoparticle prepared by Powder Metallurgy Method using RSM ,	Dr.G.Glan Devadhas	AEI	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	2019	2278-3075	SCOPUS
24	Development of an Adaptive PID Controller for a Nonlinear Process	Dr.G.Glan Devadhas	AEI	International Journal of Applied Engineering Research	2019	0973-4562	SCOPUS
25	MICROGRIDS -A FUTURE SMART GRID DESIGN	Dr.G.Justin Sunil Dhas	EEE	Journal of Power Electronics and Devices	2018		
26	Brain tumor detection and segmentation using a wrapper based genetic algorithm for optimized feature set	Dr.G.Glan Devadhas	AEI	Springer Cluster Computing volume 22, pages13369–13380 (2019)	2018	ISSN 1386-7857	SCIE

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.No	Title of paper	Name of the authors	Depar tment	Name of journal	Year	ISSN number	Publicati on type
	Emerging Techniques and Trends in DNA Cryptography	Ms. Akhila Mathew	CSE	STM Journal	2019	ISSN: 2229-6964	UGC
	Survey on Static and Dynamic Hand Gesture Recognition Techniques	Ms.Keerthijith P	CSE	IJSR	2019	2319-7064	UGC
	A Hybridized ELM for Automatic Micro Calcification Detection in Mammogram Images Based on Multi-Scale Features	Mr.Jayesh George	ECE	Journal of Medical Systems	2019	0148-5598	SCOPUS / SCI(E)
	Experimental analysis and effects of Gasoline as an additive in Compression Ignition Engine	Appu Kurian, Rameshan K.P, Ryne P.M	ME	IJITEE	2019	ISSN: 2278-3075,	SCOPUS
	Modeling of a Gasifier Using Cycle-Tempo for SOFC Applications	Dr.John T D	ME	AIP Conference Proceeding	2019	doi.org/10.1063/1.5120206	SCOPUS
	Biomass Densification of Ahl Powder Mechanical Properties Using RSM	Dr.Christopher Ezhil singh S,	ME	Interciencia Journal	2019	ISSN:0378-1844	SCIE
	Thermal Degradation On Biomass Briquettes Of Artocarphus Heterophyllus Leaf Powder	Dr.Christopher Ezhil singh S,	ME	Interciencia Journal	2019	ISSN:0378-1844	SCIE
	Grid frequency regulation by hybrid system using energy storage system	Dr.P.Sridharan	ME	Indian Journal of Power and River Valley Development	2019	ISSN: 0019-5537	UGC
	Elm Based Detection of Micro-Calcification in Mammogram using Glcm Features	Jayesh George Melekoodappattu, Perumal Sankar Subbian	ECE	International Journal of Recent Technology and Engineering (IJRTE)	2019	ISSN: 2277-3878	UGC
	Design of a novel controller to stabilize the dc level of photovoltaic system for low voltage stand alone applications	Dr.G.Glan Devadhas	AEI		2019	1943023X	Scopus
	Automatic diagnosis of diabetic retinopathy with the aid of adaptive average filtering with optimized deep convolutional neural network	Dr.Roshini T V , Ms.Reema Mathew	ECE	International Journal of imaging and system technology	2020	1098-1098	SCIE

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.2	Design of a Novel Controller to Maintain DC Level of PV System for Low Voltage Applications – a Review	Dr.G.Glan Devadhas	AEI	*1. International Journal of Recent Technology and Engineering (IJRTE) Volume-7 Issue-5S2, January 2019. pp. 115–159.*	2019	2277-3878	**Scopus**
.3	Improved Least Mean Square Algorithm for 5G signals in Microwave –Photonic Link	Dr.G.Glan Devadhas	AEI	International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-8 Issue-4, April 2019	2019		**Scopus**
.4	, Increasing the Coverage Area Using Microcells in Hybrid GFDM System based on RoF Technology	Dr.G.Glan Devadhas	AEI	International Journal of Recent Technology and Engineering (IJRTE)	2019	2277-3878	**Scopus**
.5	Enhanced Noise Curtailing In Long Haul Multi Service 5g Cellular Optical Hybrid Networks	Dr.G.Glan Devadhas	AEI	Jour of Adv Research in Dynamical & Control Systems	2019		**Scopus**
6	Watermarking Schemes for High Security with Applications and Attacks: Research Challenges and Open Issues,	Dr.G.Glan Devadhas	AEI	International Journal of Recent Technology and Engineering (IJRTE)	2019	2277-3878	**SCOPUS**
7	Corrosion rate of Al-Si Alloy Reinforced with B4C Nanoparticle prepared by Powder Metallurgy Method using RSM ,	Glan Devadhas.G, Dr.Christopher Ezhil Singh.S,	AEI	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	2019	2278-3075	**SCOPUS**
	Development of an Adaptive PID Controller for a Nonlinear Process	Dhanoj Mohan1 , Dr. Rathika Rani2 , Dr. G.Glan Devadhas3 , Dr. K.Gopakumar4 , Sudharsana Vijayan5 , Shalet K S6	AEI	International Journal of Applied Engineering Research	2019	0973-4562	**UGC**
	Non linearity mitigation and dispersion reduction using Bussgang theorem, modified MSE and improved MLE equalizers,	Dr.G.Glan Devadhas	AEI	Elsevier Microprocessors and Microsystems	2019	0141-9331	**SCIE**

	Moth-Flame Optimization Based Radiant Thermal Pattern Controller for Continuous Stirred Tank Heater	Dr.G.Glan Devadhas	AEI	International Journal of Scientific & Technology Research	2020	ISSN 2277-8616	**SCOPUS**
	Design and development of new control technique for standalone PV System	Dr.G.Glan Devadhas	AEI	Elsevier Microprocessors and Microsystems	2019	0141-9331	**SCIE**
	Detection of pH Neutralization Technique in multiple tanks using ANFIS controller	Dr.G.Glan Devadhas	AEI	Elsevier Microprocessors and Microsystems	2019	0141-9331	**SCIE**
	Various Methods for Object Detection Based on Deep Learning	Ms.Neena V V	CSE	International Journal of Recent Technology and Engineering (IJRTE)	2019	ISSN: 2277-3878	**Scopus**
	Optimization algorithms, an efective tool for the design of digital filters; a review	Dr.Roshini T V	ECE	ournal of Ambient Intelligence and Humanized Computing	2019	12652-019-01431	SCI
	An improved brain tumor classification system using Wavelet transform and Neural network	Dr.Anto Sahaya Dhas	ECE	West Indian Medical journal	2019	0043-3144	SCI
	A novel decision support system for malignant tumor using 3D reconstruction and volumetric analysis	Dr.Anto Sahaya Dhas	ECE	Journal of Advanced Research in Dynamics and Control Systems	2019	1943-023X	Scopus
	"Surface structural features and wear analysis of a multilayer Ti-6Al-4V-B 4 C thin film coated AISI 1040 steel",	Dr.Christopher Ezhil Singh.S,	ME	Materials Research Express – IOP Science,	2020		
	Radio Frequency Identification (RFID): A co-generation tool in Product Life cycle Managamenet (PLM)	P Sridharan	ME	IJITEE	2020		
	A Controllable Window Function for modelling nonlinerainty of a HP memristor model resultant from sigmiodal behaviour of memristive method	P Sridharan	ME	Studio Rosenthaliana (Journal of Study of Research)	2020		
	"Wear and Corrosion Behavior of Ti-based Coating on Biomedical Implants",	Dr.Christopher Ezhil Singh.S,	ME	Surface Engineering (Taylor and Francis)	2020		**SCI**
	Optimization Tool Wear on Hard Turning of AISI4140 Steel with Coated Carbide Tool Cutting Conditions	Dr.Christopher Ezhil Singh.S,	ME	IJITEE	2020		**Others**
	"Machine Tool Vibration on dimensional accuracy and Surface Roughness during Milling Operation of Al6082 with Indexable Carbide Inserts",	Dr.Christopher Ezhil Singh.S,	ME	Journal of Applied Research Technology,	2020		**Scopus**

	"TG/DTA studies on the oxidation and thermal behaviour of Ti-6Al-4V-B 4 C coatings obtained by magnetron sputtering",	Dr.Christopher Ezhil Singh.S,	ME	Journal of Applied Research and Technology,	2020		**Scopus**
	Optimization algorithms, an effective tool for the design of digital filters; a review	Dr.Roshini T V	ECE	Journal of Ambient Intelligence and Humanized Computing	2020		SCIE & SCOPUS
	Individual customization strategy accomplished by developing prototype of a laparoscopic forceps handle using additive manufacturing	Dr. SREEKANTH P.	ME	Rapid Prototyping Journal	2020	Vol. 26 No. 4, pp. 689-697.	**Scopus**

2020-21							
S.No	Title of paper	Name of the authors	Department	Name of journal	Year	ISSN number	Publication type
1	Smart Stick for blinds with advanced face recognition and Vehicle detection using machine learning	Aswani K , Nirmal Sudharman , Keerthijith P , Kavya Rajeev , Athullya Tomy	CSE	International Journal for Research in Applied Science & Engineering Technology (IJRASET)	2020	ISSN: 2321-9653	UGC
2	Effect of nano B 4 C on the tribological behaviour of magnesium alloy prepared through powder metallurgy	Christopher Ezhil Singh.S,	ME	Materials Science,	2020	DOI: https://doi.org/10.5755/j01.ms.26.3.21556	Scopus
3	"Tensile and compression behaviour, microstructural characterization on Mg-3Zn-3Sn-0.7Mn alloy reinforced with SiCp prepared through powder metallurgy method",	Christopher Ezhil Singh.S,	ME	Materials Research Express – IOP Science,	2020	DOI 10.1088/2053-1591/abb85a	
4	"Dry Sliding Friction of Al-Si-B 4 C Composites Prepared Through Powder Metallurgy using Taguchi Design",	Christopher Ezhil Singh.S,	ME	IJITEE	2020	ISSN: 2278-3075 DOI:10.35940/ijitee.F3462.1091220	
5	Analysis of Sneak Path Issues in Memristor Based 4x4 And 8x8Crossbar Nonvolatile Random AccessMemory Array	Dr.P.Sridharan Dr.V.Sampathkumar	ME	Solid State Technologies	2020	ISSN:0038-111X	Scopus
6	Prediction and performance emission characteristics of direct Ignition engine with biofuel using artificial neural networks.	Dr.P.Sridharan Dr.V.Sampathkumar	ME	Interciencia Journal	2020		UGC
7	Optimization on friction and wear behaviour of Al-Si alloy reinforced with B 4 C particles by Powder Metallurgy using Taguchi design	Christopher Ezhil singh S,	ME	Bulletin of the Polish Academy of Sciences: Technical Sciences,	2020	DOI: 10.24425/bpasts.2020.135379	

8	Early detection and classification of breast tumor from mammogram images	Jayesh George Melekoodappattu, V.Vijikala, D.Anto Sahaya Dhas	ECE	International Journal of Psychosocial Rehabilitation	2020	1475-7192	Scopus
9	optimization on friction and wear behavior of Al-Si alloy reinforced with B4C particles by Powder Metallurgy using Taguchi design	Dr.G.Glan Devadhas	AEI	Bulletin of the Polish Academy Of Sciences Technical Sciences	2020		SCIE
10	A tumour segmentation approach from FLAIR MRI brain images using SVM and genetic algorithm	Dr.G.Glan Devadhas	AEI	International Journal of Biomedical Engineering and Technology (IJBET)	2020	1752-6418	SCIE
11	Detection and classification of breast cancer from digital mammograms using Hybrid Extreme Learning Machine Classifier	Dr. Jayesh George M	ECE	International Journal of Imaging systems and technology	2020	1098-1098	SCIE
12	Driver Exhaustion Detection Systems	Akhila Mathew	CSE	IJESC	2020	2321 3361	UGC
13	Approaching Bus Driver Collapse Exposure Entity Situated upon Rumbustious Observable Inquiry as Concerns Eye Eventuality	Akhila Mathew	CSE	International Journal for Research in Applied Science & Engineering Technology (IJRASET)	2020	2321-9653	UGC
14	Kidney Transplantation System for Matching and Donor Recipient Verification using BlockChain	Akhila Mathew	CSE	International Journal for Research in Applied Science & Engineering Technology (IJRASET)	2020	2321-9654	UGC
15	Script Identification: AReview	Reema Mathew	ECE	International Journal of Current Engineering and ScientificResearch	2020	2394-0697	
16	Identification of PlantDisease: A Review",	Reema Mathew	ECE	International Journal of Current Engineering and ScientificResearch	2020	2394-0697	
17	Machine Learning and Internet of Things based Fruit Quality Monitoring System:A Proof of Concept Implementation and Analysis	Ms. Neena V V	CSE	International Journal for Research in Applied Science & Engineering Technology (IJRASET)	2020	ISSN: 2321-9653 DOI:10.22214 /ijraset.2020.6373	UGC

18	Automatic Form Filler	Ancy K Sunny	CSE	International Journal for Research in Applied science & Engineering Technology, Volume 8, Issue VI, June 2020.	2020	DOI : http://doi.org/10.22214/ijraset.2020.6300	UGC
19	Weight Optimized Neural Network for Heart Disease Prediction using Hybrid Lion Plus Particle Swarm Algorithm	Dr.Renji P Cherian	CSE	Journal of Biomedical Informatics	2020	1532-0464; https://doi.org/10.1016/j.jbi.2020.103543	SCIE
20	Bitcoin : An Overview of the Innovative Decentralised Digital Currency	Ms. Keerthijith. P	CSE	Journal of Computer, Internet and Network Security	2020	ISSN : 2457-0176(Online).	UGC
21	Frame-Angle Controlled Wavelet Modulated Inverter and Self-Recurrent Wavelet Neural Network-Based Maximum Power Point Tracking for Wind Energy Conversion System	Ms. Teena George	EEE	IEEE ACCESS	2020	**ISSN:** 2169-3536	SCOPUS
22	MODELING AND CONFIGURATIONS OF AN ELECTRIC VEHICLE	Ms.Shelma George	EEE	International Journal of Advanced Research in Engineering and Technology (IJARET)	2020	ISSN Print: 0976-6480 and ISSN Online: 0976-6499 DOI:10.34218/IJARET.11.12.2020.057	SCOPUS
23	A Bibliometric Review of Stock Market Prediction: Perspective of Emerging Markets	Arjun R	CSE	Journal of Applied Computer Systems	2020	ISSN 2255-8691 (online) ISSN 2255-8683 (print)	SCOPUS
24	Comparison Method of PSO and DE Optimization for MPPT in PV Systems under Partial Shading Conditions	R. Senthilkumar	EEE	International Energy Journal	2020	**ISSN:** 1513-718X	SCOPUS
25	A Unified Tensor Framework for Clustering and Simultaneous Reconstruction of Incomplete Imaging Data	JOBIN FRANCIS	ECE	ACM Trans. Multimedia Comput. Commun. Appl	2020	**1551-6857**	SCOPUS

26	A Two-Way Optimization Framework for Clustering of Images using Weighted Tensor Nuclear Norm Approximation	JOBIN FRANCIS	ECE	IEEE Xplore	2020	978-1-7281-5120-5/20	SCOPUS
27	Automated breast cancer detection using hybrid extreme learning machine classifier	Jayesh George Melekoodappattu, Perumal Sankar Subbian	ECE	Journal of Ambient Intelligence and Humanized Computing	2020	https://doi.org/10.1007/s12652-020-02359-3	SCI

2021-22

S.No	Title of paper	Name of the authors	Department	Name of journal	Year	ISSN number	Publication type
1	Maximum Power Tracking and Power Sharing in Grid Connected WECS Using Modified PFC Rectifier and PR Controlled Inverter	Ms. Teena George	EEE	Electric Power Components and Systems, Taylor and Francis	2021	153250 08.2020	SCIE
2	ZrC-Impregnated Titanium-Based Coating as an Effective Lubricating Barrier for Artificial Hip Prosthesis	Dr.S. Christopher Ezhil Singh	ME	Materials Performance and Characterization	2021	doi:10.1520/MPC20200075	SCOPUS
3	Early detection of breast malignancy using wavelet features and optimized classifier	Dr. Jayesh George M	ECE	International Journal of Imaging systems and technology	2020	1098-1098	SCIE
4	Malignancy detection on mammograms by integrating modified convolutional neural network classifier and texture features	Dr.Jayesh George,Dr.Anto Sahaya Dhas,Binil Kumar K,Adarsh K S	ECE	International Journal of Imaging systems and technology (https://doi.org/10.1002/ima.22537)	2021	1098-1098	SCIE
5	Automated Papaya Farm Monitoring system using Unmanned Aerial Vehicle (UAV)	Dr.Jayesh George, Anto Sahaya Dhas and Kiran Joseph	ECE	SSRN Electronic Journal	2021	1556-5068	UGC
6	Deep learning based robust medical image watermarking exploiting DCT & Harris hawks optimization	Ms.Anusha Chacko	ECE	International Journal of intelligent systems,WILEY 2021	2021	1098-111X	SCOPUS
7	Computational system for medical image authentication using watermarking	Ms.Anusha Chacko	ECE	CoMeSySo-2021	2021	978-3-030-90317-6	SCOPUS
8	Prediction of fatigue crack initiation life in SA312 type 304LN austenetic stainless steel straight pipe with nodes	KV Anjusha	ECE	Nuclear Engineering and Technology	2021	1738-5733	SCOPUS
9	Influence of AZ91 Alloy Reinforced with Nano B4C particles on Microstructural Characterization, Mechanical and Tribological Properties prepared Through Powder Metallurgy	Dr. S. Christopher Ezhil Singh	ME	Material Research Express, IOP Science	2021	2053-1591	SCI

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10	"Performance Characterization of a Solar Cavity Collector Using Artificial Neural Network,"	Dr. S. Christopher Ezhil Singh	ME	Modelling and Simulation in Engineering,	2022		SCOPUS
11	Sports Utility Vehicle Prediction based on Machine Learning Approach	Dr. S. Christopher Ezhil Singh	ME	Journal of Applied Research and Technology	2021	16656423	SCOPUS
12	Flexural Behaviour of RC Beams with a Circular Opening at the Flexural Zone and Shear Zone Strengthened Using Steel Plates	Dr. S. Christopher Ezhil Singh	ME	Advances in Civil Engineering,	2021	DOI:10.1155/2021/6733402	SCI
13	Influence of Rotation Speeds on Microstructure and Mechanical Properties of Welded Joints of Friction Stir Welded AA2014-T6/AA6061-T6 Alloys,	Dr. S. Christopher Ezhil Singh	ME	"Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering,"	2022	ISSN: 0954-4089	SCI
14	Investigation on mechanical properties for PolyJet-printed parts involving material reduction strategy	Dr. Sreekanth M P	ME	International Journal of Rapid Manufacturing	2021	1757-8817	SCOPUS

Australian Government

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CERTIFICATE OF GRANT
INNOVATION PATENT

Patent number: 2021103130

The Commissioner of Patents has granted the above patent on 9 March 2022, and certifies that the below particulars have been registered in the Register of Patents.

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Rehna Baby Joseph of PG Scholar Department of Computer, Science and Engineering Sahrdaya College, of Engineering and Technology PB.No 17 Kodakara Thrissur Kerala 680684 India

Title of invention:

A SYSTEM AND METHOD FOR PERSON DETECTION IN AERIAL IMAGERY USING SEMANTIC SEGMENTATION

Name of inventor(s):

Rajeswari, M.; Vaduganathan, D.; Sureshkumar, A.; Aswiga, R.V.; Priya, S.; Vijikala, V.; Sahaya Dhas, D. Anto; Divya, R.; T D, Princy and M.B., Lakshmi

Term of Patent:

Eight years from 4 June 2021

COMMONWEALTH OF AUSTRALIA AUSTRALIA PATENT OFFICE

Dated this 9th day of March 2022

Commissioner of Patents

PATENTS ACT 1990

The Australian Patents Register is the official record and should be referred to for the full details pertaining to this IP Right.

A1

Australian Government

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CERTIFICATE OF GRANT

INNOVATION PATENT

Patent number: 2021103130

NOTE: This Innovation Patent cannot be enforced unless and until it has been examined by the Commissioner of Patents and a Certificate of Examination has been issued. See sections 120(1A) and 129A of the Patents Act 1990, set out on the reverse of this document.

Dated this 9th day of March 2022

Commissioner of Patents

PATENTS ACT 1990

The Australian Patents Register is the official record and should be referred to for the full details pertaining to this IP Right.

Extracts from the Patents Act, 1990

Sect 120(1A) Infringement proceedings in respect of an innovation patent cannot be started unless the patent has been certified.

Sec 128 **Application for relief from unjustified threats**

(1) Where a person, by means of circulars, advertisements or otherwise, threatens a person with infringement proceedings or other similar proceedings a person aggrieved may apply to a prescribed court, or to another court having jurisdiction to hear and determine the application, for:

(a) a declaration that the threats are unjustifiable; and

(b) an injunction against the continuance of the threats; and

(c) the recovery of any damages sustained by the applicant as a result of the threats.

(2) Subsection (1) applies whether or not the person who made the threats is entitled to, or interested in, the patent or a patent application.

Sec 129A **Threats related to an innovation patent application or innovation patent and courts power to grant relief.**

Certain threats of infringement proceedings are always unjustifiable.

(1) If:

(a) a person:

(i) has applied for an innovation patent, but the application has not been determined; or

(ii) has an innovation patent that has not been certified; and

(b) the person, by means of circulars, advertisements or otherwise, threatens a person with infringement proceedings or other similar proceedings in respect of the patent applied for, or the patent, as the case may be;

then, for the purposes of an application for relief under section 128 by the person threatened, the threats are unjustifiable.

Courts power to grant relief in respect of threats made by the applicant for an innovation patent or the patentee of an uncertified innovation patent

(2) If an application under section 128 for relief relates to threats made in respect of an innovation patent that has not been certified or an application for an innovation patent, the court may grant the application the relief applied for.

Courts power to grant relief in respect of threats made by the patentee of certified innovation patent

(3) If an application under section 128 for relief relates to threats made in respect of a certified innovation patent, the court may grant the applicant the relief applied for unless the respondent satisfies the court that the acts about which the threats were made infringed, or would infringe, a claim that is not shown by the applicant to be invalid.

Schedule 1 **Dictionary**

certified, in respect of an innovation patent other than in section 19, means a certificate of examination issued by the Commissioner under paragraph 101E(e) in respect of the patent

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UNNAT BHARAT ABHIYAN
VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI, KERALA

April 2021 to July 2021

UBA Coordinator's Name: Vidhya S S

Email: vidhyasud@vjec.ac.in

Phone Number: 9496666700

Sr. No.	ADOPTED VILLAGES	TALUK(Block)	DISTRICT
1	Eruvessi	Irikkur	Kannur
2	Naduvil		
3	Alakode		
4	Sreekandapuram	Taliparamba	
5	Paisakari		

List of Activities:

ACTIVITY 1:

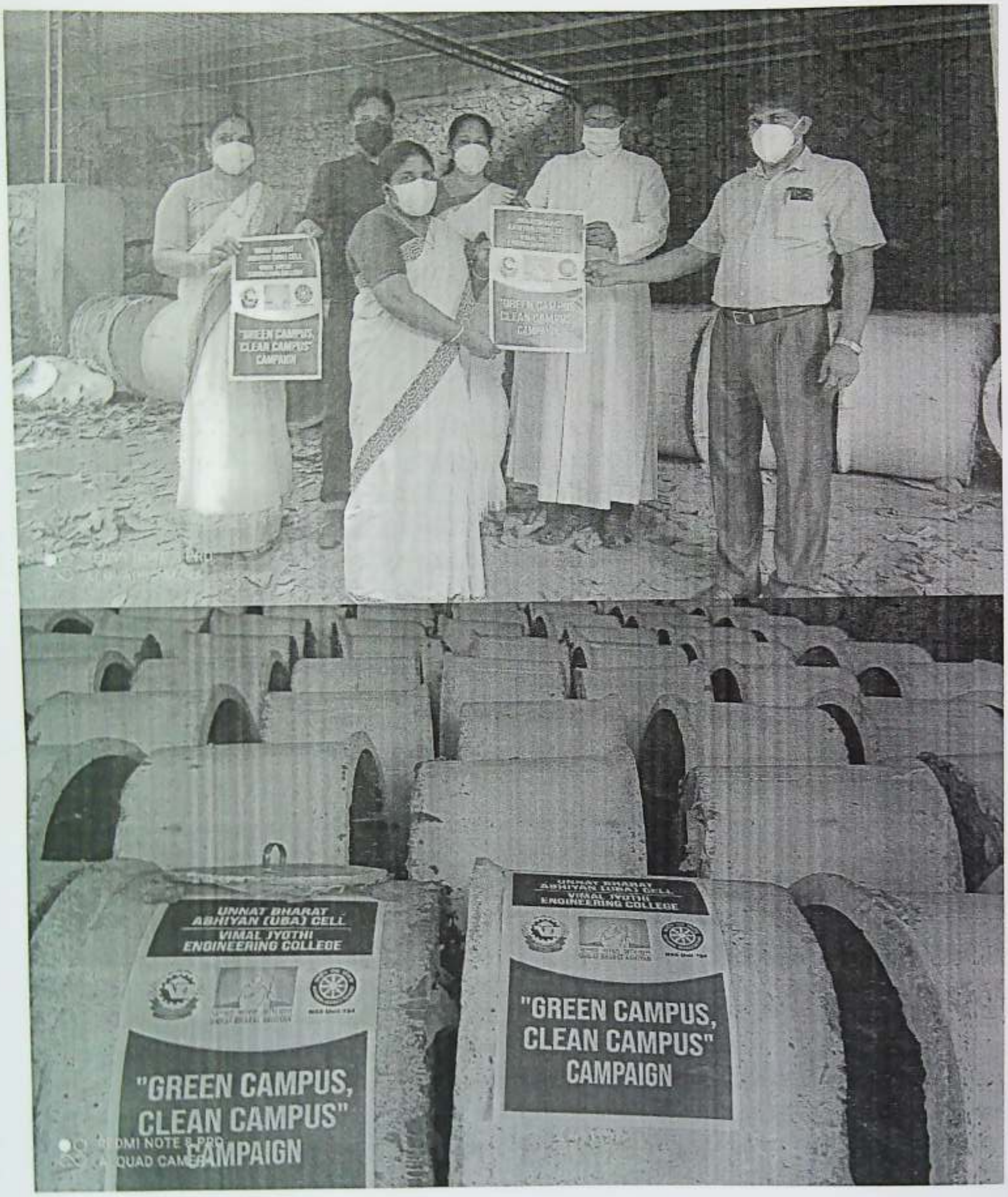
Title of the Activity: Green Campus Clean Campus campaign

Need of the Activity:

We believe that a clean, green, and pollution-free environment provides a pristine backdrop for an effective learning experience. We have taken up an initiative to keep the campus clean by distributing a ring composter system to the schools in the villages.

Brief Description

As part of the campaign, we have conducted a meeting with the panchayat president, principals of schools, and college officials. The ring composter is officially handed over to the school officials in that meeting. The meeting was addressed by management representatives and the panchayat president.



ഗ്രീൻ കാമ്പസ്, ക്ലീൻ കാമ്പസ് കാമ്പയിനിന്റെ ഭാഗമായി വിതരണം ചെയ്യുന്ന വേസ്റ്റ് മാനേജ്മെന്റ് സിസ്റ്റം ചെമ്പേരി നിർമല ഹയർ സെക്കൻഡറി സ്കൂൾ പ്രിൻസിപ്പൽ സി.ഡി. സജീവിന് കൈമാറിക്കൊണ്ട് പഞ്ചായത്ത് പ്രസിഡന്റ് ടെസി ഇമ്മാനുവൽ ഉദ്ഘാടനം ചെയ്യുന്നു. വിമൽജ്യോതി എൻജിനിയറിംഗ് കോളജ് ബർസാർ റവ. ഡോ. ലാസർ വരമ്പകത്ത് സമീപം.

വേസ്റ്റ് മാനേജ്മെന്റ് സിസ്റ്റം കൈമാറി

ചെമ്പേരി: വിമൽജ്യോതി എൻജിനിയറിംഗ് കോളജ് ഉന്നത് ഭാരത് അഭിയാൻ സെല്ലിന്റെയും എൻഎസ്എസ് യൂണിറ്റിന്റെയും സംയുക്താഭിമുഖ്യത്തിൽ സ്കൂളുകളിലും സ്ഥാപനങ്ങളിലും ഗ്രീൻ കാമ്പസ്, ക്ലീൻ കാമ്പസ് കാമ്പയിനിന്റെ ഭാഗമായി വിതരണം ചെയ്യുന്ന വേസ്റ്റ് മാനേജ്മെന്റ് സിസ്റ്റം ഏരുവേശി പഞ്ചായത്തിനു കൈമാറി. പഞ്ചായത്തിലെ എല്ലാ സ്കൂളുകളിലും സ്ഥാപനങ്ങളിലും സിസ്റ്റം വിതരണം ചെയ്യും. ചെമ്പേരി നിർമല ഹയർ സെക്കൻഡറി സ്കൂൾ പ്രിൻസിപ്പൽ സി.ഡി. സജീവിന് വെയ്സ്റ്റ് മാനേജ്മെന്റ് സിസ്റ്റം കൈമാറിക്കൊണ്ട് പഞ്ചായത്ത് പ്രസിഡന്റ് ടെസി ഇമ്മാനുവൽ ഉദ്ഘാടനം ചെയ്തു. വിമൽജ്യോതി എൻജിനിയറിംഗ് കോളജ് ബർസാർ റവ. ഡോ. ലാസർ വരമ്പകത്ത് അധ്യക്ഷത വഹിച്ചു. പഞ്ചായത്തംഗം പൗളിൻ കാവനാടി, ജയശ്രീ ശ്രീധരൻ, എൻഎസ്എസ് യൂണിറ്റ് കോ-ഓർഡിനേറ്റർ പ്രഫ. വാസുദേവൻ നായർ, യൂബിഎ കോ-ഓർഡിനേറ്റർ പ്രഫ. എസ്. വിദ്യ, സിബി പുന്നക്കുഴി എന്നിവർ പ്രസംഗിച്ചു.

Next action plan:

Sr. No.	Activity to be conducted(along with reason)
1	The major source of income in Eruvessi is rubber production. So for making this raw material a marketable product we made an initiative to Install Glove making machines in the village.
2	Most of the villagers are farmers, so we are planning to conduct digital literacy for farmers to make use of Kisan-related applications.
3	Water Conservation is very poor in this area in spite of being one of the largest rainfalls recorded in the state, last year alone Eruvessi has spent Rs.8,00,000 for transporting water during the drought from the nearby river. To develop an IoT-based system for Integrated Water Resources Development and Management for Eruvessi.
4	In order to increase livelihood opportunities and ensure women economic empowerment among the villagers, women farming activities should be encouraged especially at every household level. As an initiative towards this, we are planning to distribute low-cost incubators to improve Poultry farming.

UNNAT BHARAT ABHIYAN

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI, KERALA

August 2021 to November 2021

UBA Coordinator's Name: Vidhya S S

Email: vidhyasud@vjec.ac.in

Phone Number : 9496666700

Sr. No.	ADOPTED VILLAGES	TALUK(Block)	DISTRICT
	Eruvessi	Irikkur	Kannur
2	Naduvil		
3	Alakode		
4	Sreekandapuram	Taliparamba	
5	Paisakari		

List of Activities:

ACTIVITY 1:

Title of the Activity: Green Campus Clean Campus campaign 1

Need of the Activity:

We believe that a clean, green, and pollution-free environment provides a pristine backdrop for an effective learning experience. We have taken up an initiative to keep the campus clean by distributing a ring composter system to the schools in the villages.

Brief Description (Need/Impact/Action/Picture (if any)):

As part of the campaign, we have conducted a meeting with the panchayat president, principals of schools, and college officials. The ring composter is officially handed over to the school officials in that meeting. The meeting was addressed by management representatives and the panchayat president.

ഗ്രീൻ കാമ്പസ്, ക്ലീൻ കാമ്പസ് കാമ്പയിനിന്റെ ഭാഗമായി വിതരണം ചെയ്തു ന്ന വേസ്റ്റ് മാനേജ്മെന്റ് സിസ്റ്റം ചെമ്പേരി നിർമല ഹയർ സെക്കൻഡറി സ്കൂൾ പ്രിൻസിപ്പൽ സി.ഡി. സജീവിന് കൈമാറിക്കൊണ്ട് പഞ്ചായത്ത് പ്രസിഡന്റ് ടെസി ഇമ്മാനുവൽ ഉദ്ഘാടനം ചെയ്യുന്നു. വിമൽജ്യോതി എൻജിനിയറിംഗ് കോളജ് ബർസാർ റവ. ഡോ. ലാസർ വരമ്പകത്ത് സമീപം.

വേസ്റ്റ് മാനേജ്മെന്റ് സിസ്റ്റം കൈമാറി

ചെമ്പേരി: വിമൽജ്യോതി എൻജിനിയറിംഗ് കോളജ് ഉന്നത് ഭാരത് അഭിയാൻ സെല്ലിന്റെയും എൻഎസ്എസ് യൂണിറ്റിന്റെയും സംയുക്താഭിമുഖ്യത്തിൽ സ്കൂളുകളിലും സ്ഥാപനങ്ങളിലും ഗ്രീൻ കാമ്പസ്, ക്ലീൻ കാമ്പസ് കാമ്പയിനിന്റെ ഭാഗമായി വിതരണം ചെയ്യുന്ന വേസ്റ്റ് മാനേജ്മെന്റ് സിസ്റ്റം ഏരുവേശി പഞ്ചായത്തിനു കൈമാറി. പഞ്ചായത്തിലെ എല്ലാ സ്കൂളുകളിലും സ്ഥാപനങ്ങളിലും സിസ്റ്റം വിതരണം ചെയ്യും. ചെമ്പേരി നിർമല ഹയർ സെക്കൻഡറി സ്കൂൾ പ്രിൻസിപ്പൽ സി.ഡി. സജീവിന് വെയ്സ്റ്റ് മാനേജ്മെന്റ് സിസ്റ്റം കൈമാറിക്കൊണ്ട് പഞ്ചായത്ത് പ്രസിഡന്റ് ടെസി ഇമ്മാനുവൽ ഉദ്ഘാടനം ചെയ്തു. വിമൽജ്യോതി എൻജിനിയറിംഗ് കോളജ് ബർസാർ റവ. ഡോ. ലാസർ വരമ്പകത്ത് അധ്യക്ഷത വഹിച്ചു. പഞ്ചായത്തംഗം പൗളിൻ കാവനാടി, ജയശ്രീ ശ്രീധരൻ, എൻഎസ്എസ് യൂണിറ്റ് കോ-ഓർഡിനേറ്റർ പ്രഫ. വാസുദേവൻ നായർ, യുബിഎ കോ-ഓർഡിനേറ്റർ പ്രഫ. എസ്. വിദ്യ, സിബി പുന്നക്കുഴി എന്നിവർ പ്രസംഗിച്ചു.

Title of the Activity: Pen booths assembling and distribution

Need of the Activity:

Most of us use ball pens and just throw them out after use or sometimes in the middle if we can't write smoothly with them. The problem is its disposable nature because of its cheap price. Plastic pens are a part of the throw-away culture that we have been developing unknowingly over the last several years. About hundreds of Billion pens find their way to landfills or water bodies every year, causing environmental pollution.

Brief Description (Need/Impact/Action/Picture (if any)):

We took the initiative to place pen booths in every class room to collect these unused pens instead of throwing them on the campus.

ACTIVITY 3:

Title of the Activity: Covid Buster

Need of the Activity: We use the procedure to test the body temperature of the students/ people as a screening test for COVID- 19. One method to measure a person's surface temperature is the use of "no-touch" or non-contact temperature assessment devices.

Brief Description (Need/Impact/Action/Picture (if any)):

We developed a low cost IoT based device to measure the temperature and record the same in the cloud. This can be installed in the schools/ hospitals in the villages to avoid direct human intervention from the temperature screening process.

തേർഡ് സ്കാനിംഗ് എല്ലുരോഗാശുപത്രിക്കാർ കോവിഡ് ബ്ലൂസ്

കോവിഡ് പ്രതിരോധരംഗത്ത് വീണ്ടും വിമൽജ്യോതിയുടെ സംഭാവന

Next action plan:

Sr. No.	Activity to be conducted(along with reason)
1	The major source of income in Eruvessi is rubber production. So for making this raw material a marketable product we made an initiative to Install Glove making machines in the village.
2	Most of the villagers are farmers, so we are planning to conduct digital literacy for farmers to make use of Kisan-related applications.
3	As the COVID-19 pandemic made significant reduction in the income of villages , we planned to support them to initiate self employment through developing and distributing machines like puttu making and copra dryer.

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UNNAT BHARAT ABHIYAN
VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI, KERALA

August 2021 to November 2021

UBA Coordinator's Name: Vidhya S S

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Phone Number : 9496666700

Sr. No.	ADOPTED VILLAGES	TALUK(Block)	DISTRICT
	Eruvessi	Irikkur	Kannur
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List of Activities:

ACTIVITY 1: Village women economic empowerment through low cost IoT Based Hatchery Unit distribution.

Title of the Activity: A helping hand for Rural women

Need of the Activity:
The major source of income of villagers is either farming or business related to agricultural products. The COVID-19 pandemic made a drastic drain in the economic status of the villagers. This proposal aimed to support the village women for finding a revenue through poultry farming. This low-cost incubator is capable of producing 100 chicks from a single unit and will be able to make an income of upto 30000 per month.

Brief Description

Each unit is capable of holding 100 eggs (at a survival rate of 90%). The total cost for this is EGG - 5 per unit, electricity bill of 100 Rs for 63 days. They can market chicken meat (130/kg), egg (7 Rs per unit), or chicks (30 Rs per chick). On an average 30000 Rs can be expected from a single unit. 13 unit is distributed to each kudubasree JDS of 13 blocks one each.

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ഏരുവേശി ഗ്രാമപഞ്ചായത്തിന് വിമൽജ്യോതിയുടെ സ്നേഹസമ്മാനം

News came in the news paper about the distribution of Egg Hatching Unit

5a

ACTIVITY 2:

Title of the Activity: Independence Day Celebration

Need of the Activity: The Independence Day reminds every Indian about the dawn of a new beginning, the beginning of an era of deliverance from the clutches of British colonialism of more than 200 years. So, it is the responsibility of every Indian to disseminate the importance and sacrifices of freedom fighters among the young generation around us.

Brief Description

We celebrated Azadi Ka Amrit Mahotsav with the villagers by distributing National Flag to the villagers to fly the tri color in their houses. The Occasion was marked with a Special Gram Sabha Where-in the Panchayath president, Ward members, Panchayath Officials, the college authorities and village representatives were present.

5Y









ACTIVITY 3:

Title of the Activity: Snehagiri Psycho Social Home Visit

Need of the Activity:

For developing the personality and character of the student through community service, these kinds of activities are promoted among student community. These kind of visits helps the students to identify the social needs and the real problems faced by the inmates. This will help to promote the development of socially relevant project ideas among the students for the villagers.

Brief Description:

Snehagiri Home is a charity home situated in one of the adopted Village. The students and staffs in our institution spend one full day with the inmates. They helped them for their daily activities and entertained the residents of the Centre with games, dance and songs.

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ACTIVITY 3:

Title of the Activity: Texpo22

Need of the Activity:

Technical exhibitions can be a potent medium of communicating latest developments in science and technology to people, in particular youngsters who could be encouraged to take up science as a career.

Brief Description:

A science and technical exhibition, "Texpo22" was conducted at Govt. Technical High school, Naduvil, on 29th October 2022. The students of our college demonstrated various technical projects. The villagers and the nearby school students visited the stall.

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ACTIVITY 4:

Title of the Activity:

Panchayath Planning Committee Membership

Need of the Activity:

Every panchayath possess a panchayath planning committee to collect the people needs and prepare the plan of action to implement the development plans.

Brief Description:

The panchayath planning committee is meant to organize the development plans for the villagers, so our college put forward an initiative to provide the technical support in the developmental activities happening in panchayath level. A request is submitted to the president for adding two of our staff members as the permanent member in panchayath planning board. Mr. Vasudevan (NSS coordinator) and Ms. Vidhya S S (UBA coordinator) is added as the member.

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Next action plan:

Sr. No.	Activity to be conducted (along with reason)
1	Most of the villagers are farmers, so we are planning to conduct digital literacy for farmers to make use of Kisan-related applications.
2	Green school Program Installing waste compost units. Technical waste management awareness programs and special sessions.
3	Town cleaning program, and city clean and hygienic awareness campaign.

UNNAT BHARAT ABHIYAN

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI, KERALA

April 2021- March 2022

UBA Coordinator's Name: Vidhya S S

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List of Activities:

ACTIVITY 1:

Title of the Activity: Green Campus Clean Campus campaign

Need of the Activity:

We believe that a clean, green, and pollution-free environment provides a pristine backdrop for an effective learning experience. We have taken up an initiative to keep the campus clean by distributing a ring composter system to the schools in the villages.

Brief Description

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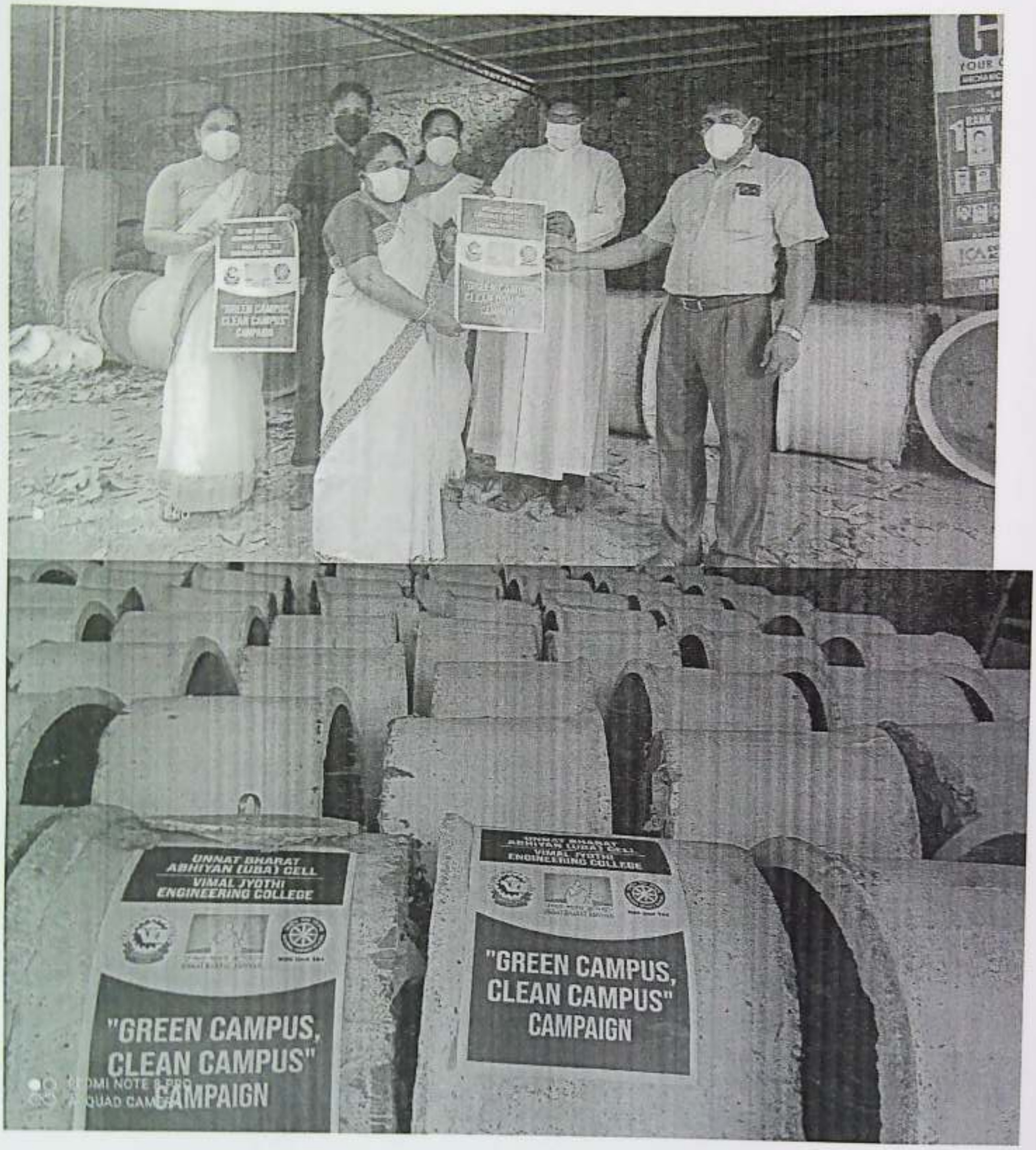


ഗ്രീൻ കാമ്പസ്, ക്ലീൻ കാമ്പസ് കാമ്പയിനിന്റെ ഭാഗമായി വിതരണം ചെയ്യുന്ന വേസ്റ്റ് മാനേജ്മെന്റ് സിസ്റ്റം ചെമ്പേരി നിർമല ഹയർ സെക്കൻഡറി സ്കൂൾ പ്രിൻസിപ്പൽ സി.ഡി. സജീവിന് കൈമാറിക്കൊണ്ട് പഞ്ചായത്ത് പ്രസിഡന്റ് ടെസി ഇമ്മാനുവൽ ഉദ്ഘാടനം ചെയ്യുന്നു. വിമൽജ്യോതി എൻജിനിയറിംഗ് കോളജ് ബർസാർ റവ. ഡോ. ലാസർ വരമ്പകത്ത് സമീപം.

വേസ്റ്റ് മാനേജ്മെന്റ് സിസ്റ്റം കൈമാറി

ചെമ്പേരി: വിമൽജ്യോതി എൻജിനിയറിംഗ് കോളജ് ഉന്നത് ഭാരത് അഭിയാൻ സെല്ലിന്റെയും എൻഎസ്എസ് യൂണിറ്റിന്റെയും സംയുക്താഭിമുഖ്യത്തിൽ സ്കൂളുകളിലും സ്ഥാപനങ്ങളിലും ഗ്രീൻ കാമ്പസ്, ക്ലീൻ കാമ്പസ് കാമ്പയിനിന്റെ ഭാഗമായി വിതരണം ചെയ്യുന്ന വേസ്റ്റ് മാനേജ്മെന്റ് സിസ്റ്റം ഏരുവേശി പഞ്ചായത്തിനു കൈമാറി. പഞ്ചായത്തിലെ എല്ലാ സ്കൂളുകളിലും സ്ഥാപനങ്ങളിലും സിസ്റ്റം വിതരണം ചെയ്യും. ചെമ്പേരി നിർമല ഹയർ സെക്കൻഡറി സ്കൂൾ പ്രിൻസിപ്പൽ സി.ഡി. സജീവിന് വെയ്സ്റ്റ് മാനേജ്മെന്റ് സിസ്റ്റം കൈമാറിക്കൊണ്ട് പഞ്ചായത്ത് പ്രസിഡന്റ് ടെസി ഇമ്മാനുവൽ ഉദ്ഘാടനം ചെയ്തു. വിമൽജ്യോതി എൻജിനിയറിംഗ് കോളജ് ബർസാർ റവ. ഡോ. ലാസർ വരമ്പകത്ത് അധ്യക്ഷത വഹിച്ചു. പഞ്ചായത്തംഗം പൗളിൻ കാവനാടി, ജയശ്രീ ശ്രീധരൻ, എൻഎസ്എസ് യൂണിറ്റ് കോ-ഓർഡിനേറ്റർ പ്രഫ. വാസുദേവൻ നായർ, യുബിഎ കോ-ഓർഡിനേറ്റർ പ്രഫ. എസ്. വിദ്യ, സിബി പുന്നക്കുഴി എന്നിവർ പ്രസംഗിച്ചു.

ACTIVITY 2:

Title of the Activity: Pen booths assembling and distribution

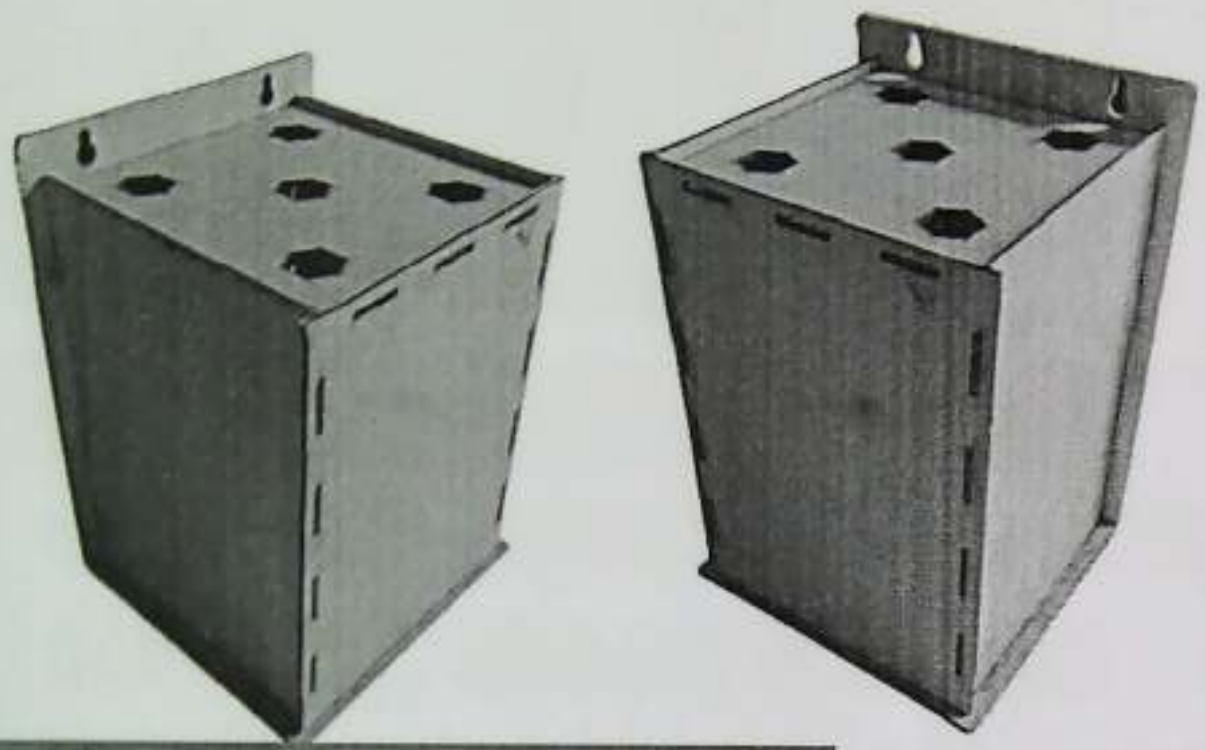
Need of the Activity:

Most of us use ball pens and just throw them out after use or sometimes in the middle if we can't write smoothly with them. The problem is its disposable nature because of its cheap price. Plastic pens are a part of the throw-away culture that we have been developing unknowingly over the last several years. About hundreds of Billion pens find their way to landfills or water bodies every year, causing

environmental pollution.

Brief Description (Need/Impact/Action/Picture (if any)):

We took the initiative to place pen booths in every class room to collect these unused pens instead of throwing them on the campus.



ACTIVITY 3:

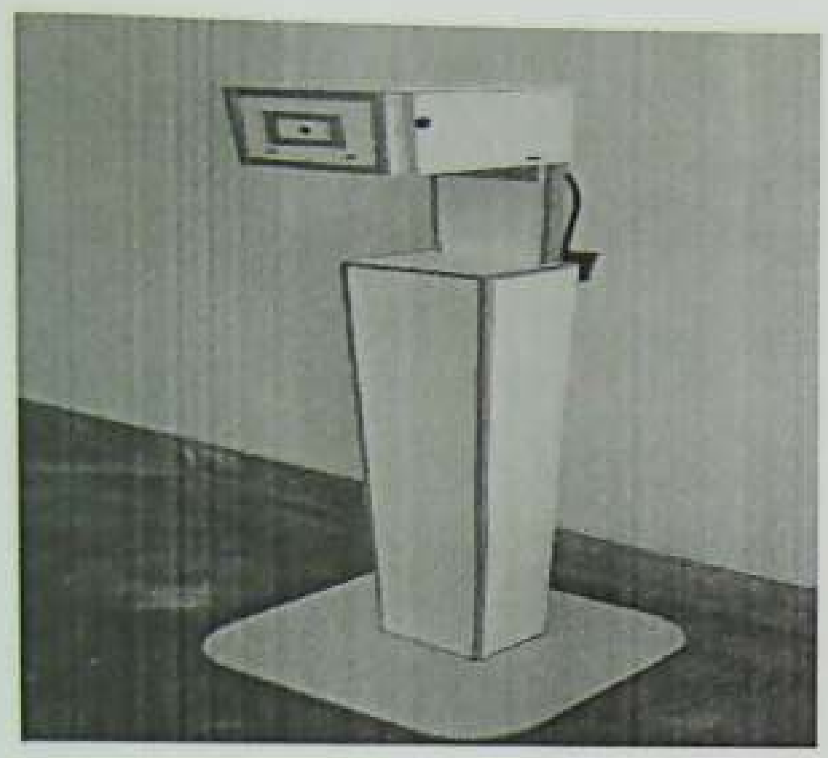
Title of the Activity: Covid Buster

Need of the Activity: We use the procedure to test the body temperature of the students/ people as a screening test for COVID- 19. One method to measure a person's surface temperature is the use of "no-touch" or non-contact temperature assessment devices.

Brief Description

(Need/Impact/Action/Picture (if any)):

We developed a low cost IoT based device to measure the temperature and record the same in the cloud. This can be installed in the schools/ hospitals in the villages to avoid direct human intervention from the temperature screening process.



തെർമൽ സ്കാനിംഗ് എളുപ്പത്തിലാക്കാൻ കോവിഡ് ബ്ലസ്റ്റർ

കോവിഡ് പ്രതിരോധരംഗത്ത് വീണ്ടും വിമൽജ്യോതിയുടെ സംഭാവന

Thu, 01 April 2021
https://epaper.deepika.com/c/59481540

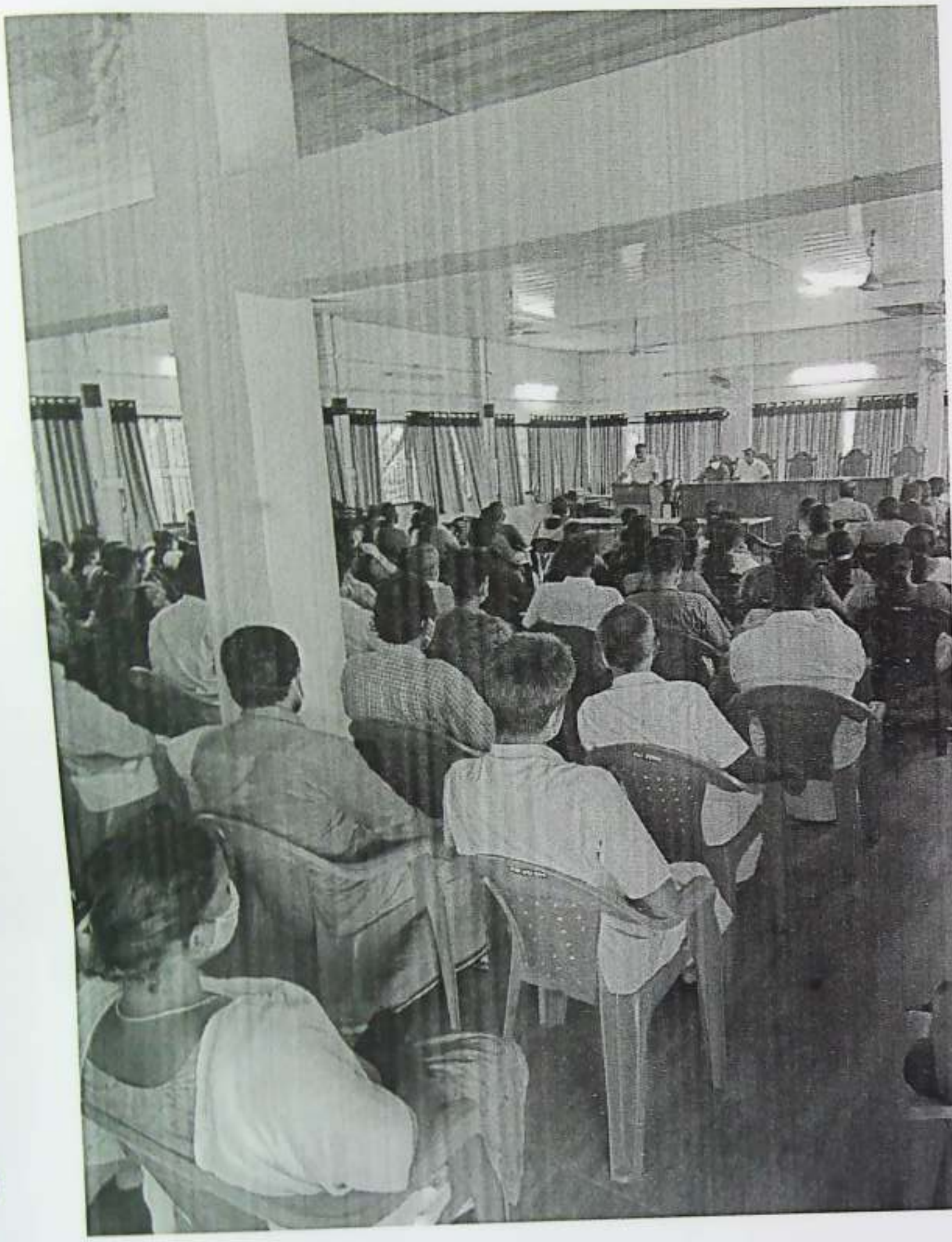
ACTIVITY 4:

Grama Panchayath meeting held on the month of January 2022

Brief Description:

The meeting is chaired by panchayat president in the presence of panchayat officials and villagers. The COVID 19 pandemic effect in the village community and its recovery measures were discussed in the meeting. The meeting was held in the college campus auditorium.

Next action plan:



ACTIVITY 5:

As an initiative to promote self-employment, we distributed puttu making machines to the kudumbasree hotel in Eruvessi panchayath.

proposed action plan for the current financial year (April 2022- March 2023)

Sr. No.	Activity to be conducted(along with reason)
1	The major source of income in Eruvessi is rubber production. So for making this raw material a marketable product we made an initiative to Install Glove making machines in the village.
2	Most of the villagers are farmers, so we are planning to conduct digital literacy for farmers to make use of Kisan-related applications.
3	Awareness about self employment opportunities.
4	In order to increase livelihood opportunities and ensure women economic empowerment among the villagers, women farming activities should be encouraged especially at every household level. As an initiative towards this, we are planning to distribute low-cost incubators to improve Poultry farming.
5	Promotion and development of Agriculture and horticulture to sustain village economy.

Name of the HEI: VIMAL JYOTHI ENGINEERING COLLEGE

Name of the Grama Panchayat: Eruvessy

Date of the meeting: 1/05/2022

Problem Identification

Sl no:	Problems/Issues identified	Expertise available for the concerned problem (Yes/No). If Yes, Please share the expertise available in your institute	Proposed Plan if any for the identified solution.
1	Technical help in the shopping complex construction at chemperi under grama panchayath	YES, The Civil engineering Department.	A discussion was conducted over the phone and planned to visit the site.
2	Different panchayat level surveys	YES, Man power [College NSS unit Statistical study CSE department]	Discussions going on.
3	Digital literacy among common people	YES, CSE department	Planned for a single interface for common applications demanded by the common people and its training.
4	Water testing	YES, the Civil department has an authorized water testing lab.	
5	Soil testing	NO , Currently no lab facilities for soil testing.	

7a

Signature Not Verified

Principal.VJEC

VIMAL JYOTHI ENGINEERING COLLEGE	VJEC Seed Money for Research and Innovation Policy	Policy No: VJEC/HR/01/23
	Policy Version:1.0	20.01.2023

1	**VJEC Seed Money for Research and Innovation**
	The VJEC Seed Money for Research and Innovation is a funding initiative to encourage faculty to pursue research and innovation activities in emerging areas of regional, national and international importance. A maximum amount of Rs 50, 000 is awarded to support such activities.
2	**Objectives**
	➢ To support the faculty to initiate outcome oriented research activities ➢ To promote multidisciplinary/transdisciplinary research among the faculty ➢ To encourage faculty to develop innovative products and processes ➢ To inspire faculty to generate Intellectual Property Rights ➢ To validate innovative ideas/concepts to generate preliminary results before submitting proposals to external funding agencies ➢ To create strong interdisciplinary research groups ➢ To attract and retain talent ➢ To encourage the spirit of innovation and entrepreneurship
3	**Duration**
	The maximum duration of the seed grant is 6 months from the date of sanction.
4	**Eligibility Criteria**
	➢ Faculty with PhD or those who are perusing PhD can apply. ➢ Faculty should not have obtained seed money earlier. ➢ Faculty who have completed project(s) or having ongoing funded projects will not be considered. However, faculty who have submitted research proposals to funding agencies and awaiting results are eligible.
5	**Submission and Evaluation Process**
	Proposals submitted to the principal will be scrutinized by a team of HoDs and recommended proposals will be submitted to the manager for final approval.
6	**Project Review and Monitoring.**
	➢ The progress report should be submitted every 3 months. ➢ There will be a progress review meeting with an expert committee. ➢ Release of the subsequent fund will be approved based on the progress of work and the recommendations from the expert committee. ➢ On the completion of the project, the expert committee will recommend the Principal Investigator to take necessary action based on the outcome of the project.
7	**Expected Outcomes/Deliverables**
	The outcome needs to be at least one of the below: ➢ A minimum of two research publications in reputed journals. All the publications arising out of the seed money for research and innovation should acknowledge VJEC as follows: The author(s) acknowledge VJEC for providing VJEC Seed Money for Research and Innovation for carrying out this research work. ➢ Intellectual Property Right (IPR) for the process/product development with VJEC as the applicant and investigators as an inventor(s). ➢ Start-up through VJEC IEDC/IIC. ➢ Submit research proposals to external funding agencies.

Signature of policy approving authority	Chairman	Date of Approval:

19/01/23 19/01/23 21/02/23.

Signature Not Verified
Principal.VJEC

2022-23

S.No	Title of paper	Name of the authors	Department	Name of journal	Year	ISSN number	Publication type
1	Breast cancer detection in mammogram: combining modifed CNN and texture feature based approach	Dr.Jayesh George,Dr.Anto Sahaya Dhas,Binil Kumar K,Adarsh K S	ECE	Journal of Ambient Intelligence and Humanized Computing	2022	1868-5137	SCIE &SCOPUS
2	Flame dynamics of premixed CH4/H2/air flames in a microchannel with a wall temperature gradient	Jithin Edacheri Veetil	ME	Combustion Theory and Modelling- Taylor & Francis	2022		SCI
3	Effect of hydrogen addition on the dynamics of premixed C1eC4 alkane-air flames in a microchannel with a wall temperature gradient	Jithin Edacheri Veetil	ME	International Journal of Hyrdrogen Energy-Elsevier	2022		SCOPUS
4	A Review on Power Generation Enhancements in a Pumped Storage Powerhouse by Using Appropriate Guide Vane Sealing Material	Dr.P.Sridharan	ME	Journal of Alternate Energy Sources and Technologies	2022	eISSN: 2230-7982	UGC
5	Effectiveness of Feature Extraction by PCA-Based Detection and Naive Bayes Classifier for Glaucoma Images	S.Christopher Ezhil Singh,	ME	International Journal of Digital Multimedia Broadcasting,	2022		SCOPUS
6	Compression behaviour Mg-Zn-xSr-HA hybrid nanocomposites through powder metallurgy method	S.Christopher Ezhil Singh,	ME	Materials Today: Proceedings - Elsevier	2022		SCOPUS
7	Tribological and mechanical properties Mg-Zn-xSr-HA hybrid nanocompistes prepared by powder metallurgy technique	S.Christopher Ezhil Singh,	ME	Materials Today: Proceedings - Elsevier	2022		SCOPUS
8	Wind energy conversion system-based PMSG for maximum power tracking and grid synchronization using adaptive fuzzy logic control	Teena George, Jayapraksh p,Tinu Francisa, Christopher Ezhil Singh, Sreedharan	EEE	Journal of Applied Research and Technology	2022	ISSN 1665-6423 e-ISSN 2448-6736	SCOPUS
9	Weapon detection using ML for PPA	Dr.Jayesh George,Dr.Anto Sahaya Dhas and Nabeel	ECE	Proceedings of Third International Conference on Intelligent Computing, Information and Control Systems	2022	978-981-16-7330-6	SCOPUS

10	Effect of hydrogen addition on the dynamics of premixed c1-c4 alkaline air flames in a microchannel with a well temperature gradient	Jithin E	ME	International Journal of hydrogen energy (Science Direct)	2022	https://doi.org/10.1016/j.ijhydene.2022.07.030	SCI
11	Sustainable Green Connected Systems Through Integrated Organic Waste Management Eco-model for the Green Clean Campus	Anit Thomas M, Genimon Vadakkemulanjanal Joseph, Helen Thomas, Agnes Thomas M	CSE	ECS Transactions	2022	DOI 10.1149/10701.10423ecst	SCOPUS
12	PRODUCTIVITY ASSESSMENT MODEL USING PRODUCTIVITY ASSESSMENT MODEL USING FUZZY LOGIC APPROACH	Sanika Sumesh, Anuragi P,	CE	International journal of creative research thoughts	2022	ISSN: 2320-2882	
13	ANALYSIS OF CONCRETE FILLED DOUBLE SKIN STEEL COLUMN WITH FRP WRAPPING	Ashwathi M S,Margaret Abraham	CE	International journal of creative research thoughts	2022	ISSN: 2320-2883	
14	NUMERICAL INVESTIGATION AND COMPARISON STUDY OF COLD FORMED STEEL CASTELLATED I-SECTION	Priya K c, Peter Jobe	CE	International journal of creative research thoughts	2022	ISSN: 2320-2884	
15	5G-Telecommunication Allocation Network Using IoT Enabled Improved Machine Learning Technique	Dr.Roshini T V	ECE	International journal of Wireless Communications and Mobile Computing	2022	1530-8669	SCOPUS

UNNAT BHARAT ABHIYAN
VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI, KERALA
AISHE Code C43798

April 2022 to March 2023

UBA Coordinator's Name: Vidhya S S

Email: vidhyasud@vjec.ac.in

Phone Number : 9496666700

Sr. No.	ADOPTED VILLAGES	TALUK(Block)	DISTRICT
	Eruvessi	Irikkur	Kannur
2	Naduvil		
3	Alakode		
4	Sreekandapuram	Taliparamba	
5	Paisakari		

List of Activities:

ACTIVITY 1: Village women economic empowerment through low cost IoT Based Hatchery Unit distribution.

Title of the Activity: A helping hand for Rural women

Need of the Activity:
The major source of income of villagers is either farming or business related to agricultural products. The COVID-19 pandemic made a drastic drain in the economic status of the villagers. This proposal aimed to support the village women for finding a revenue through poultry farming. This low-cost incubator is capable of producing 100 chicks from a single unit and will be able to make an income of upto 30000 per month.

Brief Description

Each unit is capable of holding 100 eggs (at a survival rate of 90%). The total cost for this is EGG - 5 per unit, electricity bill of 100 Rs for 63 days. They can market chicken meat (130/kg), egg (7 Rs per unit), or chicks (30 Rs per chick). On an average 30000 Rs can be expected from a single unit. 13 unit is distributed to each kudubasree JDS of 13 blocks one each.

സ്ത്രീ ശാക്തീകരണത്തിന്റെ ഭാഗമായി വിതരണത്തിന് എത്തിയിരിക്കുന്ന കോഴി വളർത്തൽ യൂണിറ്റ് വിതരണോദ്ഘാടനം പഞ്ചായത്ത് പ്രസിഡന്റ് ബേബി ഇടമറുക് നിർവഹിക്കുന്നു. ഫാ. മാത്യൂ വയലിങ്കൽ, സെക്രട്ടറി പുഷ്പകുമാർ, മറ്റു ജനപ്രതിനിധികൾ എന്നിവർ സമീപം.

ഏരുവേശി ഗ്രാമപഞ്ചായത്തിന് വിമൽജ്യോതിയുടെ സ്നേഹസമ്മാനം

ews came in the news paper about the distribution of Egg Hatching Unit

ACTIVITY 2:

Title of the Activity: Independence Day Celebration

Need of the Activity: The Independence Day reminds every Indian about the dawn of a new beginning, the beginning of an era of deliverance from the clutches of British colonialism of more than 200 years. So, it is the responsibility of every Indian to disseminate the importance and sacrifices of freedom fighters among the young generation around us.

Brief Description

We celebrated Azadi Ka Amrit Mahotsav with the villagers by distributing National Flag to the villagers to fly the tri color in their houses. The Occasion was marked with a Special Gram Sabha Where-in the Panchayath president, Ward members, Panchayath Officials, the college authorities and village representatives were present.









ACTIVITY 3:

Title of the Activity: Snehagiri Psycho Social Home Visit

Need of the Activity:

For developing the personality and character of the student through community service, these kinds of activities are promoted among student community. These kind of visits helps the students to identify the social needs and the real problems faced by the inmates. This will help to promote the development of socially relevant project ideas among the students for the villagers.

Brief Description:

Snehagiri Home is a charity home situated in one of the adopted Village. The students and staffs in our institution spend one full day with the inmates. They helped them for their daily activities and entertained the residents of the Centre with games, dance and songs.

ACTIVITY 3:

Title of the Activity: Texpo22

Need of the Activity:

Technical exhibitions can be a potent medium of communicating latest developments in science and technology to people, in particular youngsters who could be encouraged to take up science as a career.

Brief Description:

A science and technical exhibition, "Texpo22" was conducted at Govt. Technical High school, Naduvil, on 29th October 2022. The students of our college demonstrated various technical projects. The villagers and the nearby school students visited the stall.

ACTIVITY 4:

Title of the Activity:

Panchayath Planning Committee Membership

Need of the Activity:

Every panchayath possess a panchayath planning committee to collect the people needs and prepare the plan of action to implement the development plans.

Brief Description:

The panchayath planning committee is meant to organize the development plans for the villagers, so our college put forward an initiative to provide the technical support in the developmental activities happening in panchayath level. A request is submitted to the president for adding two of our staff members as the permanent member in panchayath planning board. Mr. Vasudevan (NSS coordinator) and Ms. Vidhya S S (UBA coordinator) is added as the member.

ACTIVITY 4:

Title of the Activity:

Visit to oldage home , 'Karunalayam'

Need of the Activity:

Visiting elderly individuals in their homes can expose technical students to real-world challenges faced by seniors, such as mobility issues, vision problems, hearing loss, and memory problems. This can help students develop empathy and understanding for the unique needs of this population.

Brief Description:

NSS unit 194 ,306 and UBA organized a visit to nearby oldage home Karunalayam' on 25th February 2023. 22 volunteers accompanied with 5 staff members participated in the event. The team reached 'Karunalayam' at 10 AM. Volunteers interacted with the inhabitants till 10.30 AM.

ACTIVITY 4:

Title of the Activity:

THRIVE – Tribal Higher Education and Interactive Ventures for Excellence

Need of the Activity:

The THRIVE (Tribal Higher Education and Interactive Ventures for Excellence) programme is a project organized and coordinated by District Development Commissioner, Kannur. It is designed to ignite the aspirations and career goals of tribal students in Model Residential School, Pattuvam and to provide them with opportunities for growth and development. This programme focuses on delivering high-quality, relevant, and interactive educational content with the help of nearby colleges, NGOs and other institutions. Through virtual classrooms and hands-on learning experiences, students will develop the skills and knowledge needed to succeed in the modern workforce.

Brief Description:

Vimal Jyothi has got an opportunity to be one of the coordinating members of THRIVE project. A meeting was held at Kannur and decided to select 10 students as volunteers of the programme. The following students are selected.

An interaction session was organized with the volunteers and the students of Model Residential School,

lful and talented, and had discovered the potential of the students and that could help these young minds lock their full potential.

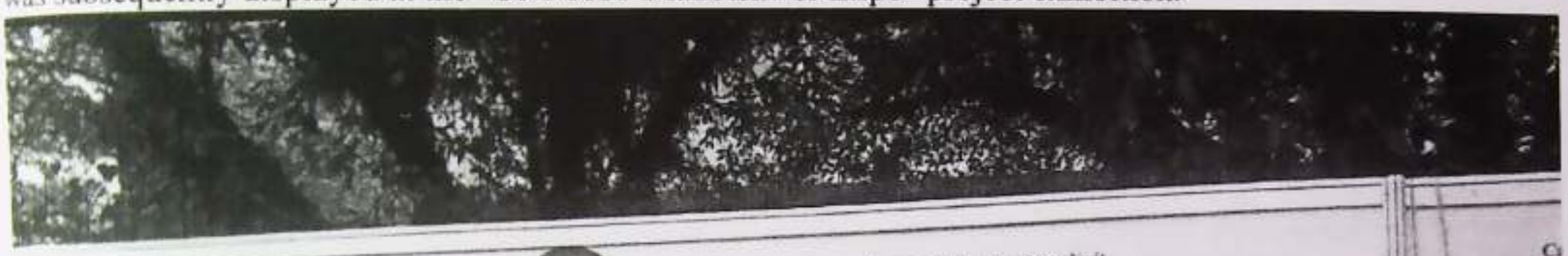
ACTIVITY 5

Title of the Activity:

'UNNATI' Mahotsav & Expo

Need of the Activity:
Mahotsav & Expo organized under Unnat Bharat Abhiyan, a flagship program of the Ministry of Education on 7th - 18th March 2023 at IIT Delhi.

Brief Description:
Our "Low cost Egg Hatching Unit" project was chosen for presentation at the IIT Palakkad project expo, and it was subsequently displayed at the "UNNATI' Mahotsav & Expo" project exhibition.



Next action plan:

Sr. No.	Activity to be conducted (along with reason)
1	Most of the villagers are farmers, so we are planning to conduct digital literacy for farmers to make use of Kisan-related applications.
2	Green school Program Installing waste compost units. Technical waste management awareness programs and special sessions.
3	Town cleaning program, and city clean and hygienic awareness campaign

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :14/09/2022

(21) Application No.202241052377 A
(43) Publication Date : 23/09/2022

(54) Title of the invention : A Smart and Artificially Intelligent System to Predict and Prevent Causalities of Landslides

(71)Name of Applicant :
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Address of Applicant :Jyothi Nagar, Chemperi (P.O.), Kannur - 670632, Kerala, India. Chemperi ---------- ----------
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5)Jijo Joseph
Address of Applicant :Assistant Professor, Department of Electrical and Electronics Engineering, Vimal Jyothi Engineering College, Chemperi (PO), Kannur – 670632, Kerala, India. Chemperi ---------- ----------
6)Sharan Rathnakumar
Address of Applicant :Student, Department of Electrical and Electronics Engineering, Vimal Jyothi Engineering College, Chemperi (PO), Kannur – 670632, Kerala, India. Chemperi ---------- ----------

(51) International classification :G08B0021100000, G06Q0050260000, G08B0021200000, G08G0001095000, G05B0023020000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

(57) Abstract :
The present invention relates to the field of disaster prediction and management and more particularly it refers to an advanced and artificially intelligent system working through a cloud based platform to anticipate and alarm the people in locations prone to landslides with the information of safe hubs. The system generates an alert when there is a sign of flood and notifies the installed user hence reduces the impact, gadget which can send real time water information from a remote location to a monitoring station of the disaster. The flood detection system is designed to be an intelligent which could be at a distance away, regardless of time. The flood observatory system can be linked to a visual and audio unit to display warnings and alerts the user via text display or traffic light system in an event of flooding. The implementation cost is invaluable to the efficiency and. usefulness of the system towards humankind. The practicality of the system helps to minimize the overheads due floods and prevents catastrophe at flood prone locations.

No. of Pages : 22 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :14/09/2022

(21) Application No.202241052378 A

(43) Publication Date : 23/09/2022

(54) Title of the invention : A Smart Bedding System for Monitoring Incapacitated Patients

(51) International classification :A61B0005000000, A61B0005021000, A61B0005020500, G16H0040200000, G10L0015220000

(86) International Application No :PCT// Filing Date :01/01/1900

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA Filing Date :NA

(62) Divisional to Application Number :NA Filing Date :NA

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(57) Abstract :
The present invention relates to the field of biomedical engineering and more particularly it refers to a smart bed assembly integrated with voice control modules and vital sign monitoring systems in order to enable the ease of monitoring the patients. This is the system of voice activated hospital bed using the voice commands of patient developed with the speech recognition application and it works automatically by using voice command, given by patient requirement. Also the monitoring system has been installed in the application such as heartbeat, temperature and oxygen level which will be continuously displayed on the Android application. If the patient crosses any normal temperature, heartbeat or oxygen level, one alert notification will send to the Doctor or relative person whose number has been saved in the application and also the buzzer will horn. Thus the overall system will be a great asset to the bedridden patients.

No. of Pages : 28 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :14/09/2022

(21) Application No.202241052379 A
(43) Publication Date : 23/09/2022

(54) Title of the invention : A Device, System and Method for Automated Sorting of Waste Materials in Public Places

(51) International classification :B65F0001140000, B30B0009300000, B65F0001000000, B65F0001160000, B65F0003000000
(86) International Application No :PCT// /
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
The present invention relates to a waste management systems. More particularly, the present disclosure pertains to a smart waste sorting system that automatically divides the waste materials collected in public places and a method thereof. The AWSM has four compartments for collecting the wastes. These are for collecting invention, plastics, metals, and food wastes. First, the waste will be deposited into the trap door with sliding mechanism through waste hatch open. After identification using the developed program, trap door will be moved above the corresponding compartment with the help of sliding mechanism and waste will be deposited in that. Trap door will be closed using a spring mechanism after depositing the waste in the corresponding compartment and move back to the waste hatch open.

No. of Pages : 20 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :14/09/2022

(21) Application No.202241052380 A

(43) Publication Date : 23/09/2022

(54) Title of the invention : A Neural Network Based System for Automated Tracking of Wind Energy

(51) International classification	:G06N0003080000, G01R0021000000, G06K0009000000, G16H0050200000, B60W0010080000
(86) International Application No Filing Date	:PCT// :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
The present invention relates to energy production and distribution management systems. More particularly, the present disclosure pertains to an intelligent system based on neural networks that enables automated tracking of wind energy. The power output of generator is calculated based on the instantaneous active and reactive power theory or the p-q theory. The power output of calculated based on the instantaneous active and reactive power theory or the p-q theory. It consists of four layers, Input Layer, Self-Recurrent Wavelet Layer, Rule Layer and Output Layer. The online learning algorithm for constructing the SRWNN model consists of structural learning and a parameter learning algorithms. Initially, there are no wavelet bases in the SRWNN model.

No. of Pages : 22 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(21) Application No.202241052381 A

(22) Date of filing of Application :14/09/2022

(43) Publication Date : 23/09/2022

(54) Title of the invention : An Image Processing Based System to Predict Passwords from Lip sinks

(51) International classification	:G06K0009000000, G06K0009460000, G06K0009620000, G06F0021320000, G06T0007246000
(86) International Application No Filing Date	:PCT// / :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :

The present invention relates to a computer vision and image processing and more particularly, the present disclosure pertains to an intelligent system to predict the passwords from a person using the lip movements. The present methodology exploits visual information by means of feature detector and descriptor techniques. This system is not an alternative to biometric verification. Biometric verification is the best possible verification system of all methods. This is an alternative to enter the password. It reduces keyboard based password theft. System will take time because it involves video processing and deep learning. If we use powerful systems, time will reduce.

No. of Pages : 26 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :18/09/2022

(21) Application No.202241053306 A
(43) Publication Date : 14/10/2022

(54) Title of the invention : A Device for Automated Tapping of Rubber from Trees

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(51) International classification :A01G0023140000, A01G0023120000, A01G0023100000, G16H0040630000, C21C0007060000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

(57) Abstract :
The present invention relates to agricultural machinery and more precisely, it refers to an automated device capable of collecting the rubber from the trees without great effort and with higher efficiency. The Automated Rubber Tapering Machine is fixed to the rubber tree and the device operation is performed. The results were up to the expectations. A highly skilled labour needs about 40 seconds to tap a tree, whereas the machine could do it in 20-30 seconds. By installing the machine on every single rubber tree in the farm, the entire tapping process could be done within minutes. A manual labour takes hours to complete the same job. The flow of latex is maximum during early mornings. from 3A.M. to 6A.M. Tapping using the automated rubber tapering machine yields maximum latex as the machine could be turned on as early in the morning as desired using the RTC.

No. of Pages : 24 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :18/09/2022

(21) Application No.202241053307 A
(43) Publication Date : 14/10/2022

(54) Title of the invention : An Artificially Intelligent System for Waste Segregation

(51) International classification	:G06N0020000000, B65F0003000000, B65F0001140000, G06N0003040000, G06Q0010000000
(86) International Application No Filing Date	:PCT// :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
The present invention relates to the field of waste management and more particularly it refers to a smart system integrated with artificial intelligence and machine learning modules to segregate wastes as per the classification. The waste segregation system using machine learning and IoT are implemented using three modules. The waste collection and segregation module , waste data module and the web interface module. The circuit is made up of a raspberry pi connected to two relay that distributes power to the two servo motors in the system. The servo motors are used to drive the conveyor belt as well as the arm to flick the waste material to there respective bins. The amount of waste material collected displayed on the web interface with help of a graph. The data collected form the system in the form of count of the waste material collected and segregated is displayed in the web interface.

No. of Pages : 22 No. of Claims : 7

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(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :18/09/2022

(21) Application No.202241053308 A
(43) Publication Date : 14/10/2022

(54) Title of the invention : An Image Processing Based System for Incubation Candling of Eggs in a Poultry Farm

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(51) International classification :G01N0033080000, A01K0045000000, H04N0005232000, A01K0043000000, A01K0041040000
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

(57) Abstract :
The present invention relates to the field of biomedical engineering and more particularly it discloses a system for incubation candling of eggs in a poultry farm towards detection of fertile and infertile eggs through image processing. The present system is divided into three main units, Temperature and Humidity Control Unit, Automatic Egg Turning Mechanism and Automatic Candling and Egg Fertility Detection Unit. A camera system is implemented by using Pi Camera and Raspberry Pi Module. The image captured by the camera system is taken for the processing. This step consists of two main processes, egg's location and fertile eggs detection.

No. of Pages : 28 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :18/09/2022

(21) Application No.202241053309 A
(43) Publication Date : 14/10/2022

(54) Title of the invention : An Image Processing Based Method to Classify Brain Tumors

(51) International classification	:G06T0007000000, G06K0009620000, G06T0007110000, G06T0015000000, G06T0007130000
(86) International Application No Filing Date	:PCT// :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
The present invention relates to medical image processing systems. More particularly, the present disclosure pertains to an artificial intelligence based method of image processing to autonomously and accurately classify tumours in brain. Brain MRI images of various kinds are obtained from local hospitals. They are scanned for any discrepancies in the normal brain architecture. Image is loaded into the GUI. Median Filtering takes place when preprocessing button is applied. Segmentation is then applied which is where the classification using the kernel SVM algorithm occurs. The tumor is classified as either benign or malignant. Clustering is another important segmentation technique used widely in the image processing. Here segmentation is performed using the Otsu's algorithm. Taking the value of k as 4, four possible clustered regions are detected in the brain MRI image. The first two clusters show the boundary region and the last two clusters show the tumor region. Finally the Output button delineates the location of the tumor region.

No. of Pages : 21 No. of Claims : 5

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(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :18/09/2022

(21) Application No.202241053310 A

(43) Publication Date : 14/10/2022

(54) Title of the invention : A Compact and Portable Thermoelectric Refrigerator

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(51) International classification :F25B0021020000, F25D0023120000, F25D0011000000, C09K0005040000, F25D0023020000

(86) International Application No :PCT// Filing Date :01/01/1900

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA Filing Date :NA

(62) Divisional to Application Number :NA Filing Date :NA

(57) Abstract :
The present invention relates to refrigeration systems. More particularly, the present disclosure pertains to a smart, compact and a portable refrigerator configured to work using a thermoelectric replacing the greenhouse gases. The product consists of thermoelectric module, an insulated cabin, thermostat and charging unit. The present refrigerator perform the same cooling function as the freon-based vapour compression or absorption refrigerators. The thermoelectric refrigerator developed is based on the principle of thermoelectric module (i.e., Peltier effect) to create a hot side and a cold side. The cold side of the thermoelectric module is used for refrigeration purposes.

No. of Pages : 20 No. of Claims : 5

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(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :18/09/2022

(21) Application No.202241053313 A

(43) Publication Date : 14/10/2022

(54) Title of the invention : A System for Transforming Finger Gestures into Other Communication Health Monitoring of Differently Abled

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(51) International classification :G06F0003010000, G10L0015260000, G09B0021000000, G06K0009000000, G06F0003160000

(86) International Application No :PCT// Filing Date :01/01/1900

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA Filing Date :NA

(62) Divisional to Application Number :NA Filing Date :NA

(57) Abstract :
The present invention relates to a translation systems. More particularly, the present disclosure pertains to an intelligent system capable of collecting the finger gestures of differently abled people and to transform it into voice or script modes of communication for effective interaction with people. It consists of a hand glove for user experience and a interactive device is used to convert sign language into voice format or voice-to-text with a wireless connection. Health Monitoring System helps to monitor the primary health condition and ensure the safety of elderly, paralyzed, or disabled people. It is lightweight and easy to carry for elderly and disabled people. So by comparing cost and efficiency, this system can be a good peer for old and disabled people. By considering the sign language recognition part, sign languages are the language that helps to convey meaning to other people.

No. of Pages : 29 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :18/09/2022

(21) Application No.202241053314 A
(43) Publication Date : 23/09/2022

(54) Title of the invention : A DEVICE AND SYSTEM FOR AUTOMOBILES TO DISTINGUISH AND IDENTIFY AUTHORIZED AND UNAUTHORIZED PARKING LOCATIONS

(51) International classification	:G08G0001140000, H04L0029080000, G09B0021000000, G01C0021360000, A61G0003060000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
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(57) Abstract :
The present invention relates to the field of automobile electronics and more particularly it discloses an Internet of Things based system and a device for four and higher wheeled automobiles to identify and distinguish authorized and unauthorized parking sites in cities and roadways. The system is designed in such a way that it gives separate assistance for disabled as well as normal users. The assistance differs according to the account used to login. If the user is a disabled person he uses his own account to login into the application. For a disabled person when his vehicle enters into a reserved parking location the application confirms it as parking location for the disabled person. In the case of an ordinary person, when his vehicle approaches a reserved parking area the application identify it as an area reserved for disabled person. Thus, he is not allowed to park in that area.

No. of Pages : 30 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :18/09/2022

(21) Application No.202241053315 A
(43) Publication Date : 14/10/2022

(54) Title of the invention : An Optical Fiber Based System and Method to Detect Adulteration in Fuels

(51) International classification	:G01N0033280000, G06K0009460000, G06T0007900000, G01N0033220000, G01N0021357700
(86) International Application No Filing Date	:PCT// :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
The present invention relates to the field of image processing applications and more particularly it discloses a system based on optical fibers for effective detection of adulteration in fuel and a method thereof. It consist of mainly two phases. One is for training and other one is for testing. The results obtained are adulterated, pure and false. Fuel adulteration is the process of contamination of fuel with adulterants like kerosene and other substances. The aim of our invention is to find out whether the given fuel sample is adulterated or not. Here, we use image processing techniques to extract the features and a mean value is calculated. The result is calculated with respect to the mean values obtained. Visualization is used to represent pure and adulterated images.

No. of Pages : 29 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :18/09/2022

(21) Application No.202241053316 A
(43) Publication Date : 14/10/2022

(54) Title of the invention : An Image Processing Based Smart System for Reading and Communication of the Visually Challenged

(51) International classification	:G06K0009000000, G09B0021000000, G06K0009200000, H04N0005225000, G06K0009180000
(86) International Application No Filing Date	:PCT// :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
The present invention relates to the field of biomedical engineering and particularly it discloses a smart system for the visually impaired people to communicate with others and read text with the help of image processing. This system consist of pi camera for capturing images which is used for text scanning or facial expression recognition based on user choice. The entire system is deployed on raspberry pi 4. For facial expression recognition CNN algorithm is used and text scanning is done by using OCR. The system can be easily used. It can be used in different environment to understand the facial expression of individuals. It can also give a better reading experience.

No. of Pages : 30 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :18/09/2022

(21) Application No.202241053316 A

(43) Publication Date : 14/10/2022

(54) Title of the invention : An Image Processing Based Smart System for Reading and Communication of the Visually Challenged

(51) International classification	:G06K0009000000, G09B0021000000, G06K0009200000, H04N0005225000, G06K0009180000
(86) International Application No Filing Date	:PCT// :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :

The present invention relates to the field of biomedical engineering and particularly it discloses a smart system for the visually impaired people to communicate with others and read text with the help of image processing. This system consist of pi camera for capturing images which is used for text scanning or facial expression recognition based on user choice. The entire system is deployed on raspberry pi 4. For facial expression recognition CNN algorithm is used and text scanning is done by using OCR. The system can be easily used. It can be used in different environment to understand the facial expression of individuals. It can also give a better reading experience.

No. of Pages : 30 No. of Claims : 5

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(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :18/09/2022

(21) Application No.202241053319 A
(43) Publication Date : 14/10/2022

(54) Title of the invention : A System for Indoor Navigation of the Visually Impaired

(51) International classification	:G01C0021200000, G09B0021000000, H04W0064000000, G01S0005020000, H04W0004330000
(86) International Application No Filing Date	:PCT// :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
The present invention relates to the field of biomedical engineering and particularly it discloses an intelligent navigation system for the visually impaired people to commute within the indoor spaces without any collisions. The present system is designed to help visually impaired to meet people and provide a safer and independent navigation in the indoor space. The system uses Wi-Fi and NodeMCU in the indoor environments to allocate and track the user's location and fingerprinting algorithm is used to estimate the position. Wi-Fi fingerprinting is found to have high accuracy and precision compared to other positioning algorithm.

No. of Pages : 28 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :18/09/2022

(21) Application No.202241053320 A

(43) Publication Date : 23/09/2022

(54) Title of the invention : A Helmet Operated Smart Control System for Two Wheeled Automotive

(51) International classification	:A42B0003300000, G08C0017020000, G08C0023040000, G08B0021020000, E03C0001050000
(86) International Application No Filing Date	:PCT// :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
The present invention relates to the field of mechatronics and more particularly it refers to a smart helmet device configured to control a two wheeled automotive through interdependent communication modules. The system consists of two modules, transmitter side contains two sensors- alcohol sensor and IR sensor and a transmitter circuitry. Alcohol sensor put close to the mouth of the rider. The Zigbee mqdule transmits information from the helmet side to the recipient on the vehicle side. The receiver side works with wireless communication. The receiver side Zigbee receives information from the transmitter side and sends it to the Arduino Uno for further handling.

No. of Pages : 26 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :18/09/2022

(21) Application No.202241053321 A
(43) Publication Date : 23/09/2022

(54) Title of the invention : A Trackable and Communicative Helmet Device for Miners

(51) International classification :A42B0003040000, H04L0029080000, G08B0021020000, G01N0027120000, A42B0001100000
(86) International Application No Filing Date :PCT// :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

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(57) Abstract :
The present invention relates to the field of IoT based wearables and more particularly it refers to a smart helmet device integrated with a communicative arrangement and a tracking system for the safety of miners. The system uses sensor to detect whether the miner has worn his/her helmet, detect certain gases and provide any alertness to the team. So in this system we has designed sensor like MQ-7(for detecting carbon monoxide), MQ-4(for gases like methane, hydrogen etc.), humidity and temperature sensor etc., Using these sensor we can provide the details to the supervisor and then to the base station. If there is any problem in the mine the supervisor has a switch to alert the miners and the base station has a switch to alert the external rescue unit.

No. of Pages : 28 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :19/09/2022

(21) Application No.202241053378 A
(43) Publication Date : 23/09/2022

(54) Title of the invention : A System for Automated Cleaning and Sanitization of Toilets

(51) International classification :E03D0009000000, A47K0013300000, B25J0011000000, A01J0007020000, A61M0003020000
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
The present invention relates to the field of automatic cleaning systems and more particularly it discloses an automated and smart system for cleansing and sanitizing the wash bowls and floor of toilets. The existing methods involve manual cleaning done by a human which is not at all an easy task and may not even exist in all areas. Placing a sensor-controlled water flusher attached to the toilet will perform the cleaning task and meanwhile, the number of cycles used is recorded to activate the automated clea ning process. We aim to ease the brushing technology using a robotic arm mechanism in which 3 servomotors are used. Pressure pump along with proper designing of pipes are also incorporated. Hence, on adopting this methodology, we will be able to increase the standard of public and community toilets and facilitate people to use these effectively.

No. of Pages : 29 No. of Claims : 5

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2023-24

S.No	Title of paper	Name of the authors	Department	Name of journal	Year	ISSN number	Publication type
1	An Adaptive Control Strategy for Performance Improvement of a Hybrid Vehicle With Fuel Cell and Supercapacitor	Ms. Shelma George,	EEE	Grenze International Journal of Engineering and Technology (GIJET)	2023		
2	Power line Voltage Sag Mitigation by Dynamic Voltage Restorer using ANN optimization Technique Approach	Dr.G.Justin Sunil Dhas	EEE	International Journal of Scientific Research in Engineering and Management		ISSN: 2582-3930	UGC
3	A review on Diagnosis of Lung Cancer and lung nodules in histopathological images using deep convolutional neural network	Dr.Roshini TV, Ms.Shimna P K	ECE	IEEE	2023		SCOPUS

s

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :03/09/2023

(21) Application No.202341059010 A

(43) Publication Date : 06/10/2023

(54) Title of the invention : ARTIFICIAL INTELLIGENCE (AI) ENABLED CYBER SECURITY THREAT DETECTION AND RESPONSE SYSTEM

(51) International classification :G06N0003080000, G06N0020000000, G06F0021570000, G06N0003040000, G06F0021550000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No :NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
The invention introduces an AI-enabled Cyber Security Threat Detection and Response System designed to address the complexities of modern cyber threats. By harnessing the power of artificial intelligence, including machine learning and deep learning methodologies, the system continuously analyzes and learns from network data, ensuring robust detection of both known and novel threats. In addition to its advanced detection capabilities, the system also incorporates an automated response module that takes swift actions upon threat detection, ranging from alerts to proactive countermeasures. Designed for versatility, it seamlessly integrates with varied digital environments and collaborates in real-time with other systems, offering a holistic, adaptive, and cutting-edge cybersecurity solution.

No. of Pages : 22 No. of Claims : 10

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WORKSHOP

IPR and Technology Transfer

Organised By

VJEC INSTITUTE INNOVATIVE COUNCIL

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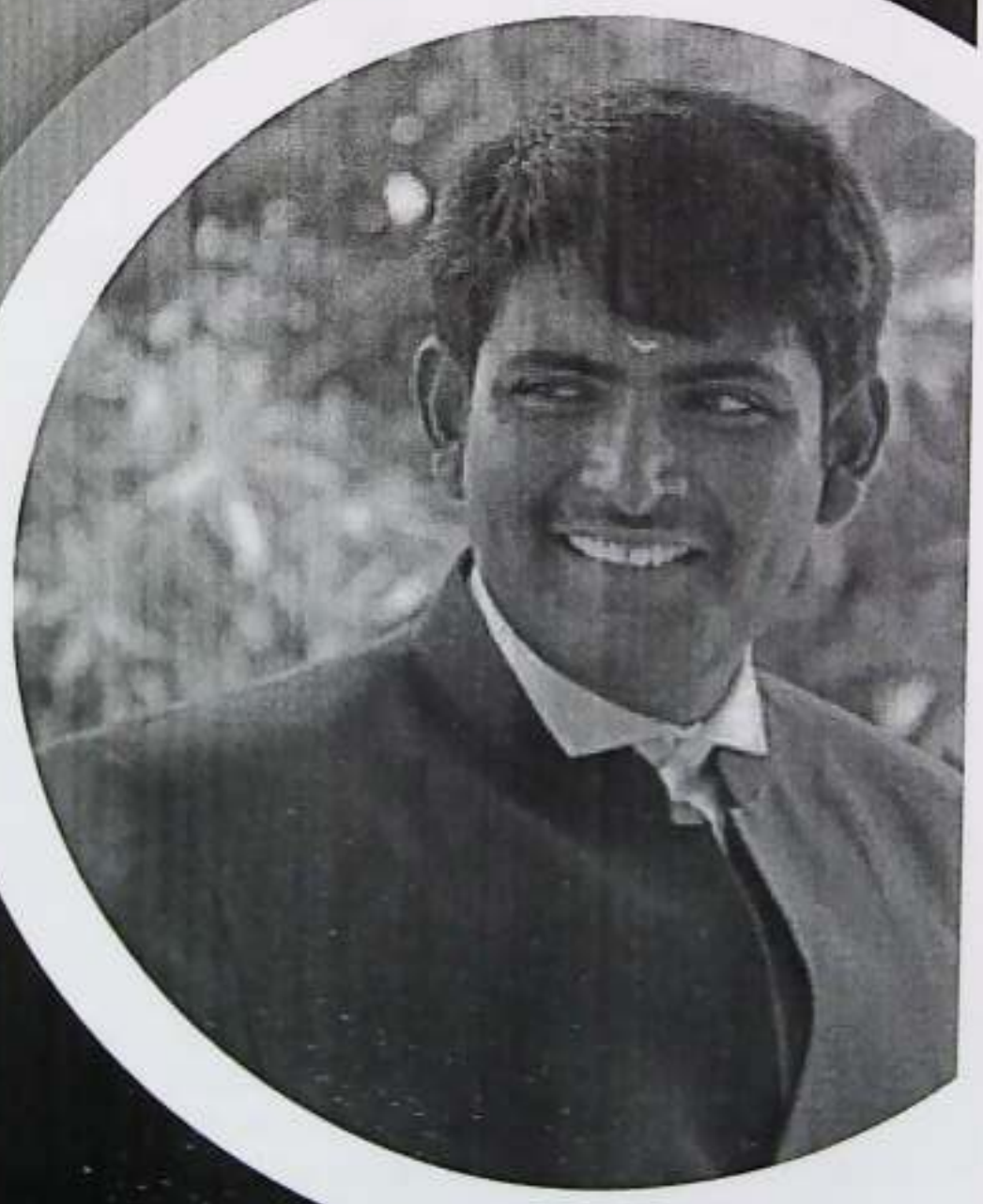

SPEAKER

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MoE's INNOVATION CELL
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INSTITUTION'S INNOVATION COUNCIL

UNNAT BHARAT ABHIYAN
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April 2023 to July 2023

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Sr. No.	ADOPTED VILLAGES	TALUK(Block)	DISTRICT
	Eruvessi	Irikkur	Kannur
2	Naduvil		
3	Alakode		
4	Sreekandapuram	Taliparamba	
5	Paisakari		

List of Activities:

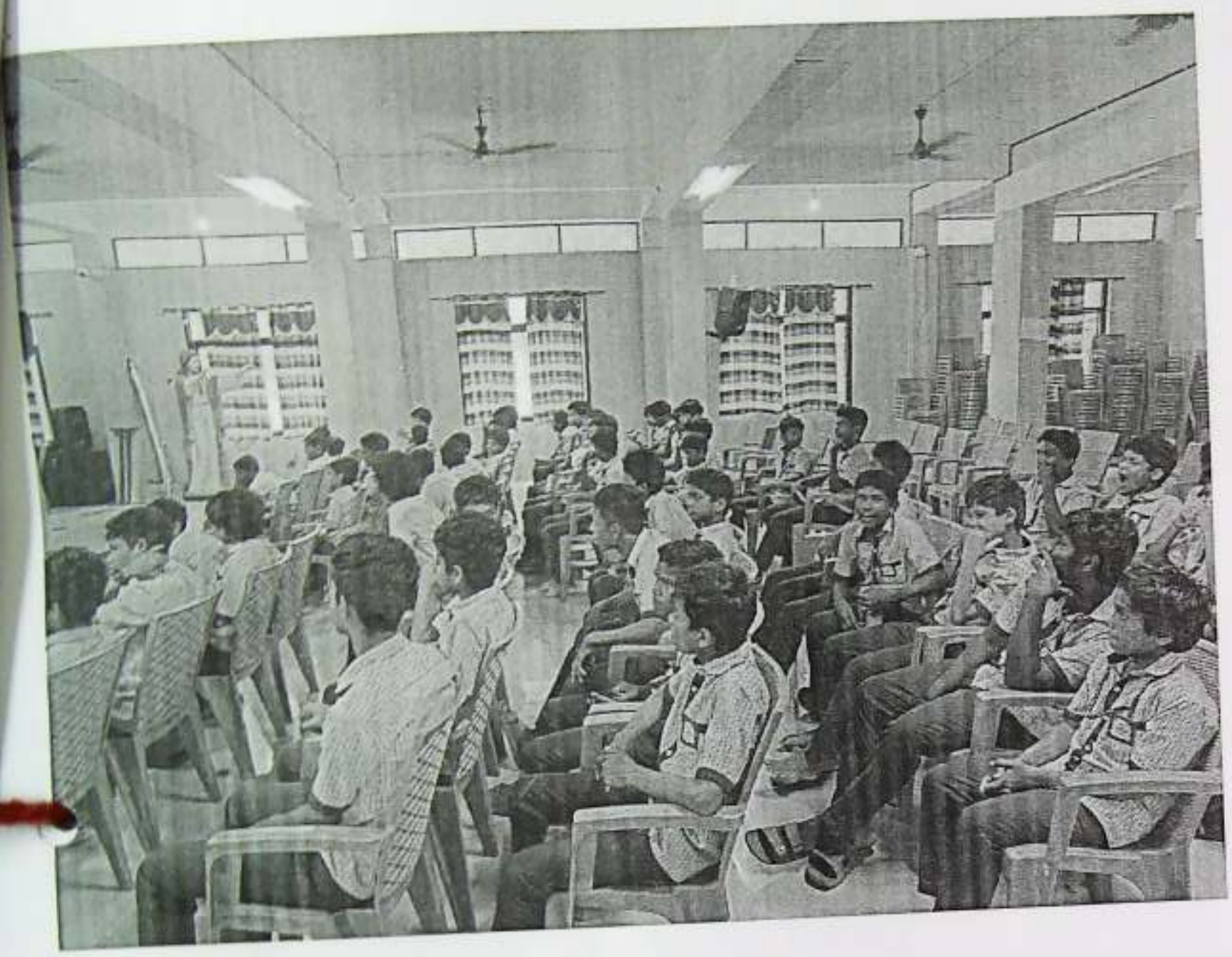
ACTIVITY 1:
Title of the Activity: THRIVE: Tribal Higher Education and Interactive Ventures for Excellence

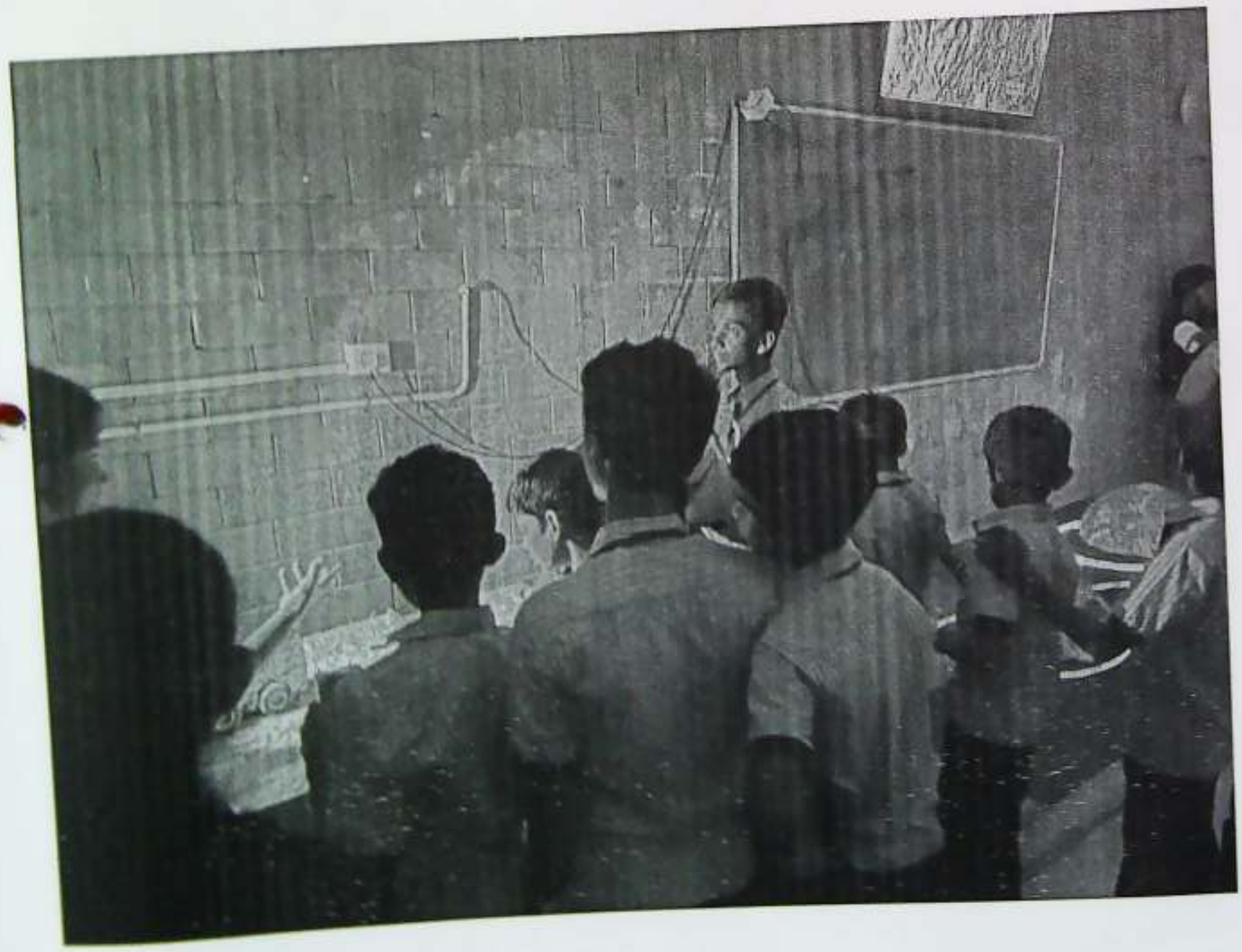
Need of the Activity: Model Residential School, Pattuvam is located in the Taliparamba block of Kannur district and caters to students from grades 5 to 12. The school is exclusively for boys and does not have an attached pre-primary section. The higher secondary section offers science, commerce, and humanities streams and uses Malayalam as the medium of instruction. The school is accessible by all-weather roads and is a non-ashram type (government-run) school. The school has a total enrolment of 380 students, with 172 students in the high school section and 203 students in the higher secondary section. The admission process usually begins with a preliminary exam on June 1st. However, the school faces several challenges in providing quality education to its students. One of the major challenges is the lack of interest in studies among the students. Many of the new students in the high school are illiterate, which presents another challenge for the school. Another major concern among the students is their poor English skills, which hinders their overall education and future prospects. Additionally, there is a lack of career aspirations and motivation among the students, which hinders their progress and academic performance.

Brief Description: It is project organized by kannur district. The THRIVE (Tribal Higher Education and Interactive Ventures for Excellence) programme is designed to ignite the aspirations and career goals of tribal students in Model Residential School, Pattuvam and to provide them with opportunities for growth and development. This programme focuses on delivering high-quality, relevant, and interactive educational

content with the help of nearby colleges, NGOs and other institutions.

The Government Model Residential Higher Secondary School in Kannur, Pattuvam, serves as a symbol of educational excellence, particularly catering to students from underprivileged backgrounds, predominantly from economically disadvantaged or SC/ST communities. As part of a pilot initiative of the THRIVE program , our college organized a program aimed at encouraging these high school students towards pursuing higher technical education. During our college's techfest day, we extended an invitation to these students. UBA (Unnat Bharat Abhiyan) volunteer students from our institution orchestrated an enlightening session for them. The session commenced with an introduction to the realm of B.Tech education, highlighting available entrance examinations and diverse educational institutions offering technical courses. Subsequently, the students were guided through a technical exhibition, where our volunteers explained each stall, fostering motivational discussions. The students and teachers from the school exhibited remarkable interest and expressed immense gratitude at the conclusion of the session.





Next action plan:

Sr. No.	Activity to be conducted (along with reason)
1	Basic mobile phone literacy in old ages at villages
2	A Session at MRS school.

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Signature Not Verified

Principal.VJEC

UNNAT BHARAT ABHIYAN
VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI, KERALA

April 2023 to July 2023

UBA Coordinator's Name: Vidhya S S

Email: vidhyasud@vjec.ac.in

Phone Number : 9496666700

Sr. No.	ADOPTED VILLAGES	TALUK(Block)	DISTRICT
	Eruvessi	Irikkur	Kannur
2	Naduvil		
3	Alakode		
4	Sreekandapuram	Taliparamba	
5	Paisakari		

List of Activities:

ACTIVITY 1:
Title of the Activity: THRIVE: Tribal Higher Education and Interactive Ventures for Excellence

Need of the Activity: Model Residential School, Pattuvam is located in the Taliparamba block of Kannur district and caters to students from grades 5 to 12. The school is exclusively for boys and does not have an attached pre-primary section. The higher secondary section offers science, commerce, and humanities streams and uses Malayalam as the medium of instruction. The school is accessible by all-weather roads and is a non-ashram type (government-run) school. The school has a total enrolment of 380 students, with 172 students in the high school section and 203 students in the higher secondary section. The admission process usually begins with a preliminary exam on June 1st. However, the school faces several challenges in providing quality education to its students. One of the major challenges is the lack of interest in studies among the students. Many of the new students in the high school are illiterate, which presents another challenge for the school. Another major concern among the students is their poor English skills, which hinders their overall education and future prospects. Additionally, there is a lack of career aspirations and motivation among the students, which hinders their progress and academic performance.

Brief Description: It is project organized by kannur district. The THRIVE (Tribal Higher Education and Interactive Ventures for Excellence) programme is designed to ignite the aspirations and career goals of tribal students in Model Residential School, Pattuvam and to provide them with opportunities for growth and development. This programme focuses on delivering high-quality, relevant, and interactive educational

ontent with the help of nearby colleges, NGOs and other institutions.

The THRIVE event was held on 17th June 2023 from 2:00 PM to 5:00 PM at the MRS school premises. The event aimed to inspire and guide students towards a brighter future.

Student members attended : Abhay KV, Amal Jerry, Angel, Anson Leon Sebastian, Ashik Jhonson, Ashwanth, Henath, Hooriyya, Jeffin, Tanvi.

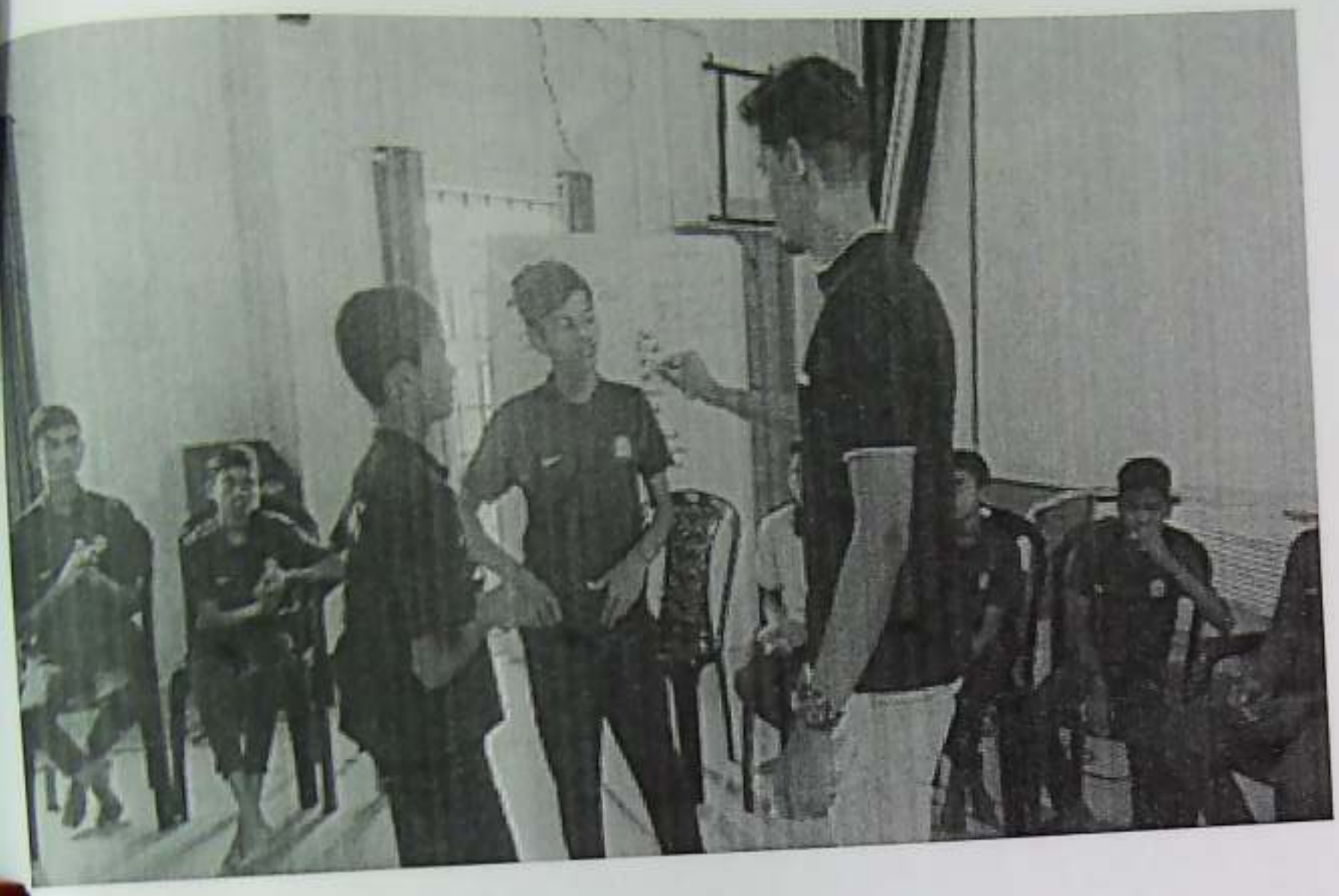
After the inauguration, the students were divided into two groups based on their class.

Group A

Group A took their assigned students to the school ground and divided them into two groups. To encourage a healthy competitive spirit, the students were allowed to choose names for their respective groups. This activity facilitated personal interaction and helped us learn more about the interests and hobbies of the students.

Group B

In Group B, after the participants started showing interest in the session, a series of engaging activities were conducted to foster learning and interaction.



Next action plan:

Sr. No.	Activity to be conducted (along with reason)
1	Most of the villagers are farmers, so we are planning to conduct digital literacy for farmers to make use of Kisan-related applications.
2	Basic mobile phone literacy in old ages at villages

VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI – 670632, KANNUR D.T., KERALA
An ISO 9001:2015 Certified Institution

COVID CELL - VJEC

ACTIVITY REPOPRT

Vimal Jyothi Engineering College

Chemperi, Kannur

1 2 8

Signature Not Verified
Principal.VJEC

Vimal Jyothi Engineering College, Chemperi has constituted Covid-19 cell on 24/03/20 by Principal in line with the directive from the Higher Education department (489/2020/ HEDN). The Covid-19 cell is operational with Chairperson and its assigned members. The Administrator of Vimal Jyothi Engineering College was assigned as the chairperson to coordinate the activities.

The Vimal Jyothi Engineering College covid-19 cell has enforced the following decisions:

1) Conducted meetings with virtual platforms and initiated Covid-19 awareness programs as: 1. Created awareness materials and shared among the staff, students, Parents, and the public. 2. Send precautionary SMS and awareness emails as per the strategies of the governments. 3. HODs monitoring the well-being of the student (and staff) community through the existing student mentoring systems.

2) Break the chain campaign: Assured the availability of sanitizers and washing facility at the entrances of the college campus Effective virtual communication systems initiated to eliminate the physical proximity.

3) Consent was given to the concerned apex authorities to convert the College hostels as COVID-19 isolation centres in case of any emergency and initial discussions with local administrative authorities were conducted through the COVID-19 cell.

4) Uninterrupted academic activities of the college in association with the Covid-19 cell Initiated full-fledged online classes with the support of google classroom, Google hangout/meet, and other relevant video conferencing facilities form March 12, 2020 itself Regular student level class committee, departmental and college level meetings were initiated to evaluate the uninterrupted academic and ancillary functions.

5) Free online Engineering Entrance trainings were started as the part of Vimal Jyothi CSSR

6) A research team was formed under the leadership of Dr. T D John, Dean Research with the following faculty members:

   - Dr. V Sampath Kumar, Professor, Applied Electronics and Instrumentation
   - Mr.Sunil Paul, Associate Professor, Mechanical Engineering
   - Mr. Sarin C R, Assistant Professor, Electrical and Electronics Engineering.

7) The team conducted regular online meetings and made visits at COVID hospital for studying their main requirements. Based on the suggestions given by Dr. Ajith Kumar, Nodal Officer, the team has developed many products.

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1 PROJECTS UNDERTAKEN - OVERVIEW

No	Product Developed	Consumer / Beneficiary
1	Ventilator	1) KnowHy 2) ASAP 3) ICTAK 4) KTU 5) Tu Delft University Note: An online open course is planned to be launched very soon
2	Automatic sanitizer	District Covid Treatment Centre Kannur
3	Pedal operated sanitizer	1) Kannur International Airport 2) District Covid Treatment Centre Kannur 3) Iritty Police Station 4) DYSP office Taliparamba 5) CI office Sreekandapuram 6) Kudiyanmala Police Station 7) 50+ Public health Centers and many other locations
4	Nightingale 19 - Robot	1) District Covid Treatment Centre Kannur 2) Govt Hospital Thalassery 3) Medical College Calicut
5	Hercules 19	Under foolproofing for medical compliance
6	Pedal operated hand wash	District Covid Treatment Centre Kannur
7	Two wheeler based sanitizer sprayer	Under construction
8	Patient Information system	Under construction
9	Automated Kiosk	Under construction

2 PRODUCTS AND PROJECTS

2.1 NIGHTINGALE-19 ROBOT

The robot is designed to carry food and medicine for patients in the COVID ward. Also it is having a video calling facility to interact with patients in the COVID ward. Automobile parts are used for fabricating the robot. Two heavy duty wiper motor are used for driving the robot. Wiper motors are designed to run continuously at full load for longer duration and its reliability is very high. Instead of using a hobby grade remote, standard remote control used for aero modelling is used for controlling direction. Additional features like controlling the solenoid valve of tea/coffee dispenser and temperature sensor are performed using the same remote. Robot speed can be controlled for 0 to 20 m/min for easy navigation and control. Machine language is used for programming the controls for better reliability. Safety features like obstacle sensors and remotely operated buzzer can be attached for better safety of people around the robot.

Team behind the project

Students: Noyal Jose, Amal Babu, Daniel Paul Lalat

Faculty : Mr. Sunil Paul, Dr. T D John, Dr. V Sampath Kumar, Mr. Sarin C R

Figure 2: FB post of Hon Minster KK Shailaja Teacher

Face book pages of Chief Minister and Health Minister

1) **Sri. Pinarayi Vijayan, Chief Minister**

   Click here find the post of Chief Minister of Kerala

2) **Smt. Shyalaja Teacher, Health Minister**

   Click here find the post of Health Minister of Kerala

Major Channels with links

1) **Times Now Channel**

   Click here to find the news

2) **Asianet News**

   Click here to find the news

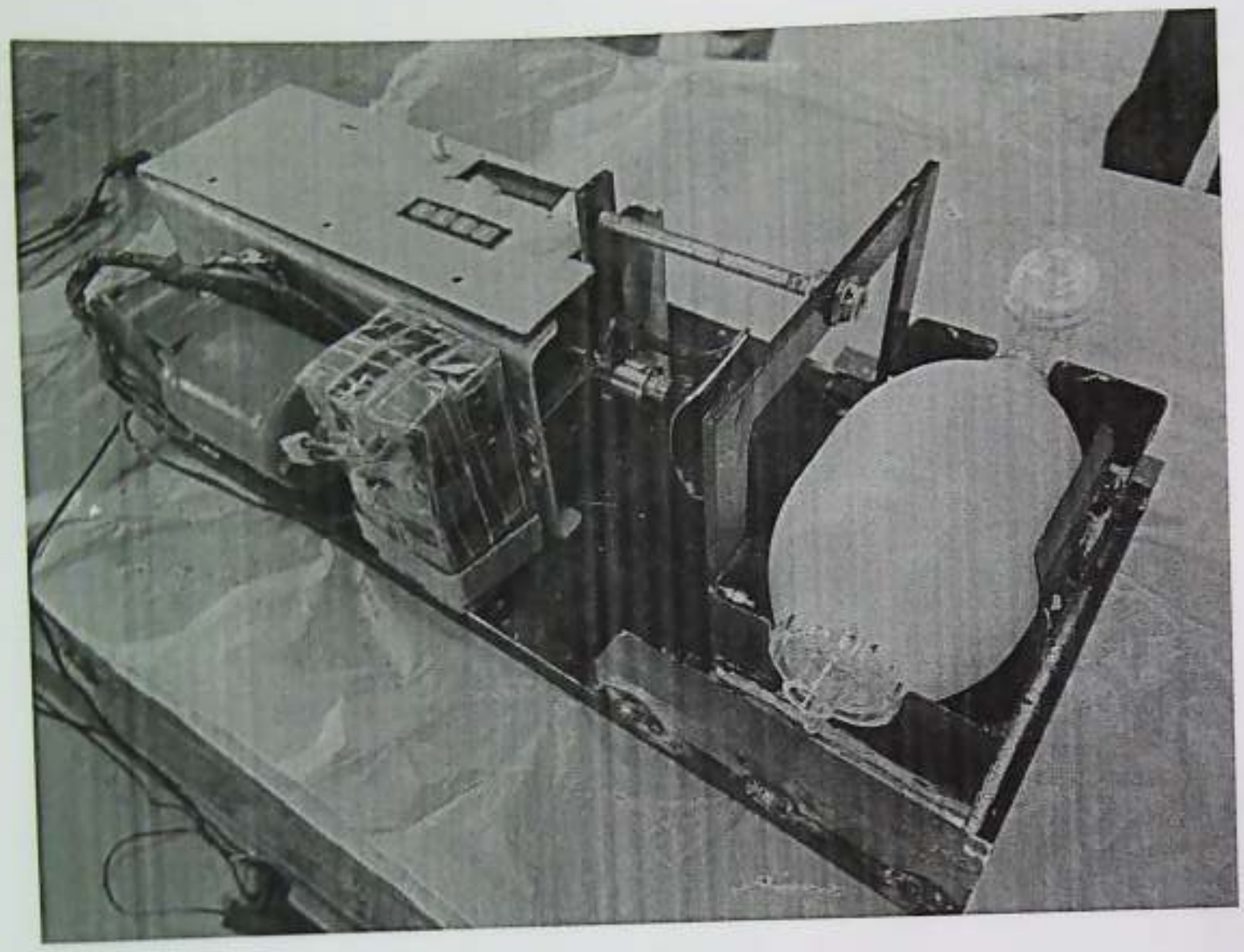

Figure 3: Ventilator

2.2 Breathing Support Device- Mini Ventilator

The need for a breathing support device for emergency situations like COVID- 19 , in case of shortage of full-fledged ventilators prompted the design and fabrication of a low-cost portable breathing support system. It can be used in emergency situations even at households and primary health-centers.

The bag-mask valve bag is a manual resuscitator which is used to provide positive pressure ventilation to patients who are feeling difficulty in breathing. This bag mask valve bag is placed horizontally on a platform with rack and pinion arrangement for making horizontal movement. This arrangement helps to fix the bag-mask valve bag on exact position as per the requirements. A motor is used for pressing the bag-mask valve bag. This is done by using a slider crank mechanism which converts rotary motion to linear motion. Thus, the bag-mask valve bag will be pressed and released alternatively which in turn induces pumping of air. The rate of pressing and the speed of pressing can be controlled depending of the patient's beat rate and various other parameters. This is a microcontroller-based system. Different parameters such as heart beat rate, respiratory rate, air intake rate, blood pressure etc are given as inputs to the microcontroller. The microcontroller evaluates the inputs and the speed of the motor is controlled. Also, we are using two sensors, a pressure sensor and a flow sensor. Pressure sensor is used to find out negative pressure and increase the stroke and the Flow sensor is used to maintain residual volume in the lungs. An LCD display is used for displaying the parameters and the pair of switches is used for navigation. This full arrangement is fixed on a platform and this platform is fully portable.

Team behind the project

Students: Noyal Jose, Amal Babu, Daniel Paul Lalat

Faculty : Mr. Sunil Paul, Dr. T D John, Dr. V Sampath Kumar, Mr. Sarin C R

We have made interations with European FP7-project (funded by the European Commission and coordinated by the Fuel Cell and Hydrogen Joint Undertaking) that aims at providing to the widest possible audience of technicians specific training modules, practical, in an appropriate format and at affordable cost, to facilitate the deployment of the FC&H2 technologies expected to enter the market within the time frame 2014-2020.

KnowHy intends to create six different courses with one common core module and five different specialisations modules. Courses will be supported in E-learning format and will be available in multiple countries and in 7 languages (English, German, French, Italian, Spanish, Portuguese and Dutch).

With the support from KnigHt and many academic / resaerch patners,we are planning to launch a open source ventilator design course.

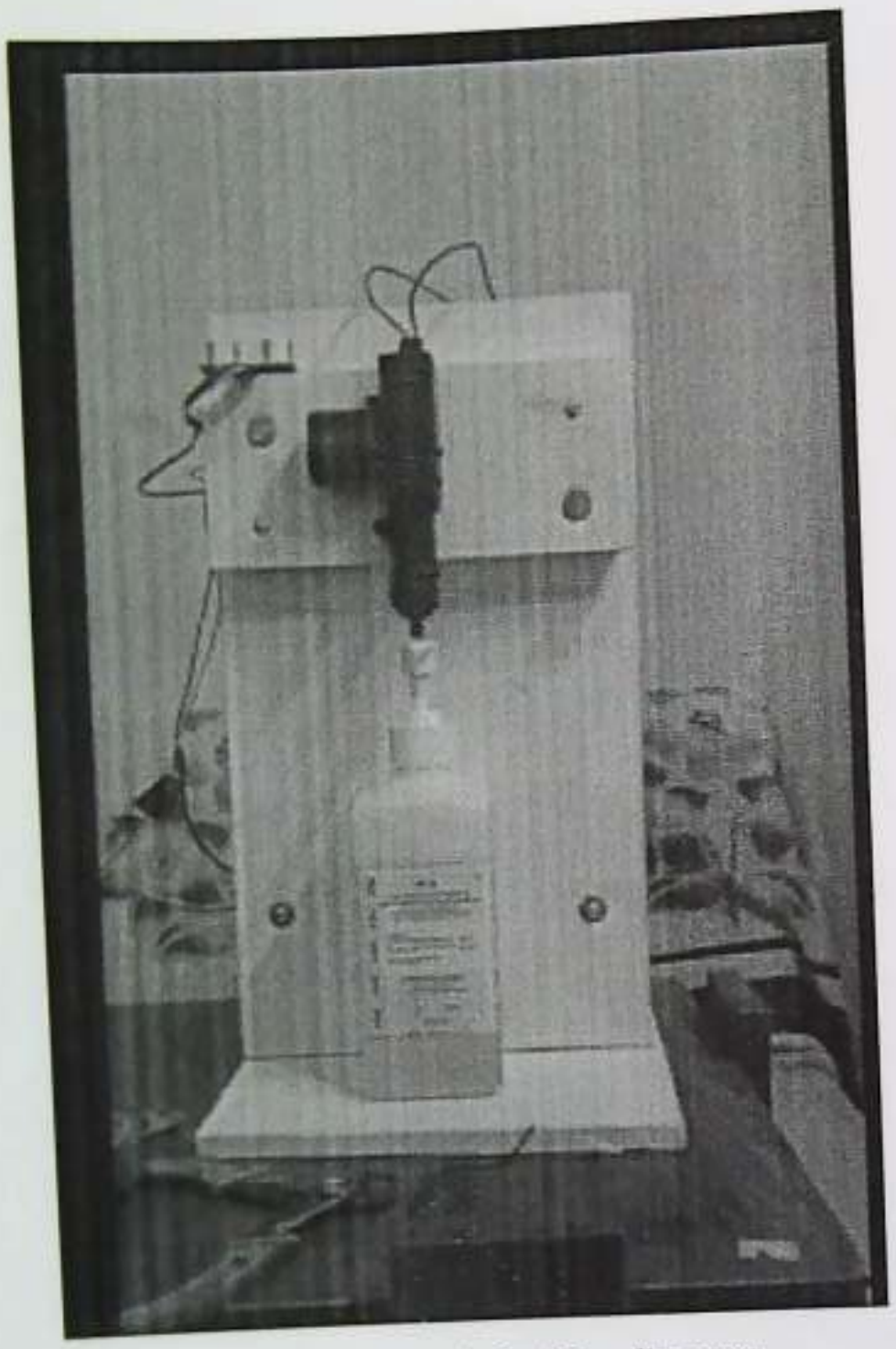

Figure 4: Automatic Sanitizer dispenser

2.3 Automatic Sanitizer dispenser

Safely managed water, sanitation, and hygiene (WASH) services are an essential part of preventing and protecting human health during infectious disease outbreaks, including the current COVID-19 pandemic. Covid-19 could be prevented by adopting extensive hygienic behaviours. Disease spread could be eliminated by proper hand sanitization. Most of the hand sanitizers are available in bottled form. Using such bottles for hand washing needs direct contact with the bottle. If many people are using the same sanitizer, this may cause spreading of viruses. In this project, an Automatic Hand Sanitizer Dispenser with Proximity sensor which will automatically detect the human presence and provide Sanitizer solution. This idea was developed to prevent people from having to touch the dispenser of the hand sanitizer, ensuring that it always remains germ-free.

Team behind the project

Students: Mr Sharan Rathnakar

Faculty : Prof. Laly James, Prof. Prabhin James, Mr. Sarin C R

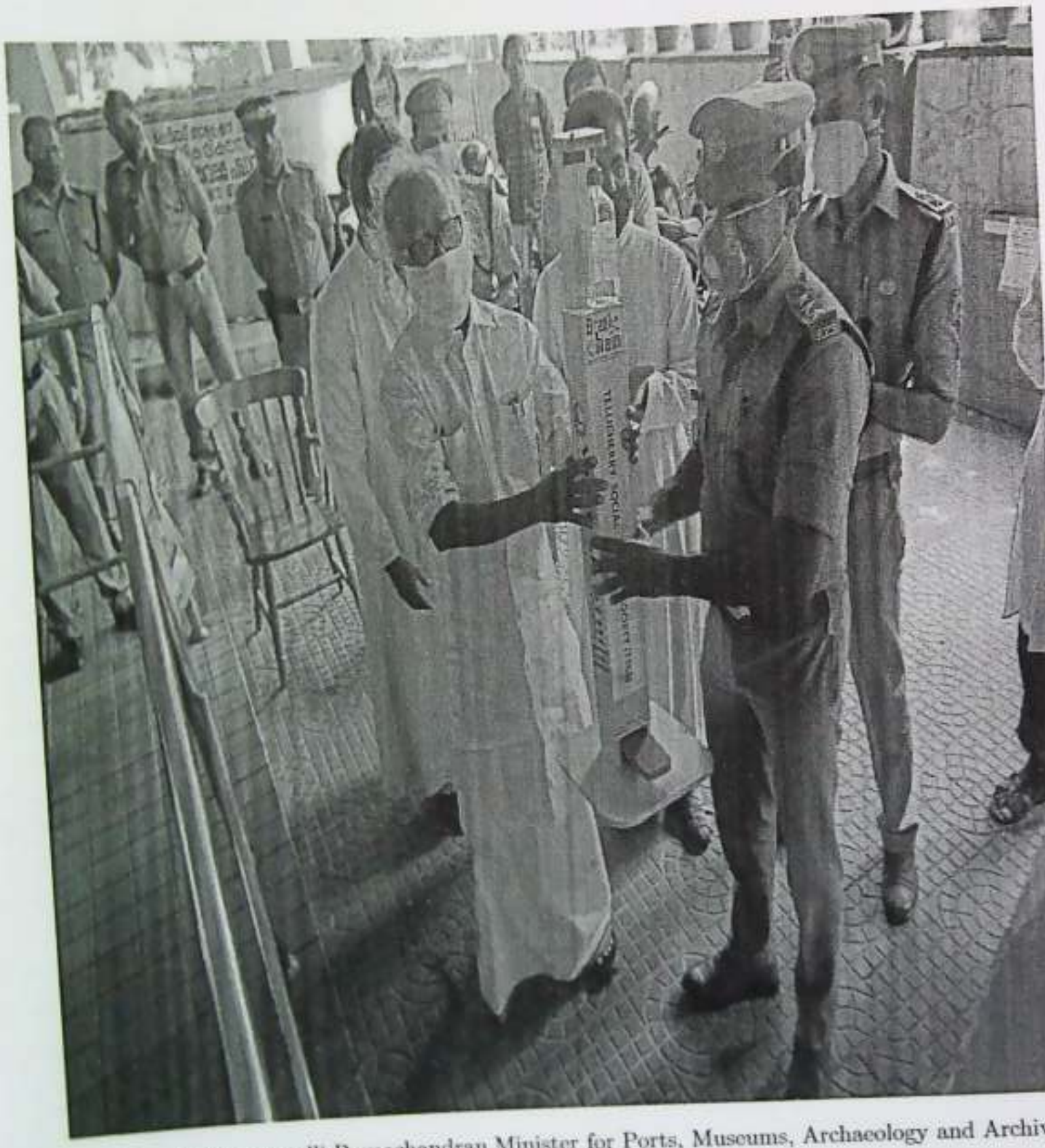

Figure 7: Hon Kadannappalli Ramachandran,Minister for Ports, Museums, Archaeology and Archives inaugurating the product

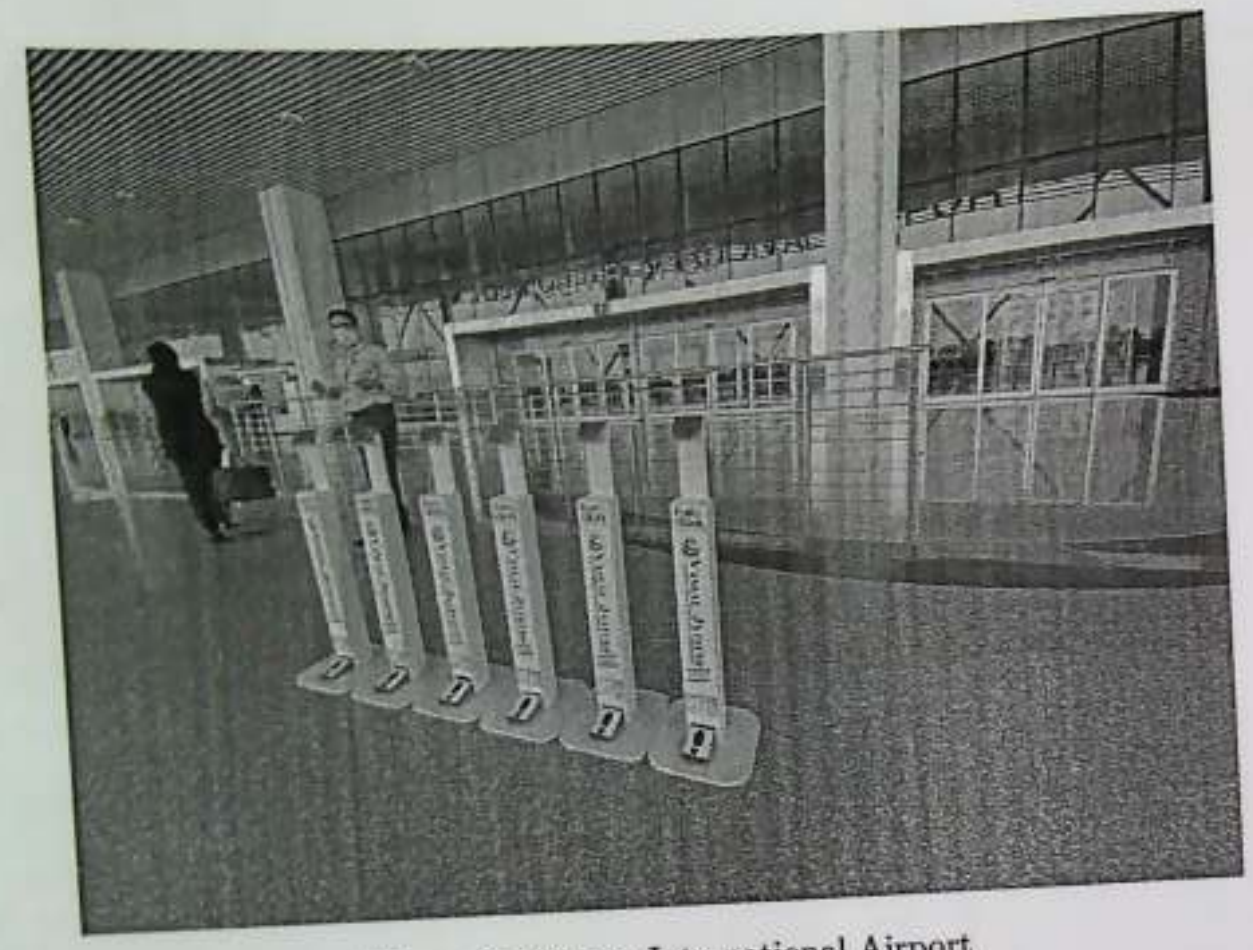

Figure 8: Kannur International Airport

2.5 Hercules 19 - EV Kiosk

It is an Electric Vehicle based mobile Kiosk. The doctor can sit inside the Hercules 19 , designed in a square shape. There are two holes through which the doctor can extend the hands to the patient. The doctor will use double layered disposable gloves. There is an automatic sanitiser unit, which can be operated with a doctor's leg. A disinfecting mist will be sprayed after the patient's exit. An electric mobility is added which helps the doctor to drive the Kiosk to patients.

The kiosk will not require the staff to wear Personal Protective Equipment (PPE). The staff can stand inside the kiosk and collect the throat swabs without exposing themselves to the person under observation. The exposed part of the glove will be sanitised after each use.

The PPE kits which cost about Rs 1,000 per piece cannot be used more than once. Though at present there is no severe shortage of the kits in Kerala, medical staff have raised concerns that if there happens to be a sudden surge in the number of COVID-19 cases, then PPE kits' availability will become a problem.

Team behind the project

Students: Noyal Jose, Amal Babu, Daniel Paul Lalat

Faculty : Mr. Sunil Paul, Dr. T D John, Dr. V Sampath Kumar, Mr. Sarin C R

പൊതുവിശേഷം

വിമൽജ്യോതി കേരളത്തിന്റെ അഭിമാനം: മന്ത്രി ഇ.പി. ജയരാജൻ

Figure 9: E. P. Jayarajan, Hon Minister for Industries and Sports inagurated the product

3 Other Activities

1) Research Cell research cell in association with Tu Delft University, Netherland, KnowHy, ASAP, ICTAK, KTU has organized a webinar on open source medical technologies and an online open course is planned to be launched very soon. An awareness programme on the "Development of Covid - 19 related Technologies and dissemination through online platforms" is scheduled on the 16th of May, Saturday at 11.30 am.

   Students: Noyal Jose, Amal Babu, Daniel Paul Lalat

   Faculty : Mr. Sunil Paul, Dr. T D John, Dr. V Sampath Kumar, Mr. Sarin C R

2) Institution of Engineers (India),Tiruchirappalli Local Centre in association with IEI TNSC have arranged Online Lecture on Technology interventions in combating COVID-19 by Dr. V. Sampath Kumar,Professor,Vimal Jothi Engg College,Kerala Date / Time: May 19, 2020 / 05:30 PM India

   Students: Noyal Jose, Amal Babu, Daniel Paul Lalat **Faculty :** Dr. V Sampath Kumar

3) The project titled "Desalto: Desalination of sea water using solar incorporating IoT" Done by Megna Sudeep, Jishnu J Purushothaman, Jibin Tom and Lakshvin of S8 EEE bagged 1st Prize worth 10k under the college category in the competition "PITCH ONline - Online Idea Pitching Contest" Organized by Federal Institute of Science And Technology (FISAT) Angamaly. Break the chain campaign

   Team behind the project Faculty : Megna Sudeep, Jishnu J Purushothaman, Jibin Tom and Lakshvin of S8 EEE

4) The students of S8 ECE made a video to create awareness among the people to stay home and follow the rules laid by the government in this COVID-19 period. It was a hit in the media and appreciated by everyone. The link to access that video:

   https://www.facebook.com/1428663394069483/posts/2553259311609880/

   Team behind the project Faculty : S8 CSE

5) Break The chain campaign : The alumni's of Applied Electronics and Instrumentation (2010-14) made a poster for awareness of break the chain campaign.

   Team behind the project Faculty : Alumni's of Applied Electronics and Instrumentation (2010-14)

6) Panel discussion on COVID pandemic

   IEEE branch of Vimal Jyothi Engineering College arranged a panel discussion on " Is Kerala Technologically Ready for another Pandemic?"

   Team behind the project Faculty : Ms Laly James

7) Vimal Jyothi UBA unit has submitted 8 proposals worth 8 Lakh for various devices/measures that can fight COVID-19. Following is the list of proposals submitted:

Sl. No	Name of Project	Fund requested	Remarks
1	Robot for Food & medicine dispenser	1 Lakh	For 2 units
2	Breathing support device	1 Lakh	
3	Leg operated hand sanitizer	1 Lakh	For 125 units
4	Herbal Sanitizer production	1 Lakh	
5	Kiosk vehicle	1 Lakh	
6	Patient information system	1 Lakh	
7	Gloves manufacturing machine	1 Lakh	For 125 units
8	Automatic hand sanitizer	1 Lakh	
	Total	8 Lakh	

4 Media Reports

1) Time Now Channel: https://www.youtube.com/watch?v=XA0qu4C968w
2) Indian Express: https://www.newindianexpress.com/good-news/2020/apr/21/robot-designed-by-kerala-engineering-students-joins-fight-against-covid-19-2132998.html
3) Economic Times: https://economictimes.indiatimes.com/news/politics-and-nation/now-robot-is-part-of-keralas-fight-against-coronavirus/articleshow/75273490.cms?from=mdr
4) Times of India : https://timesofindia.indiatimes.com/city/kozhikode/now-nightingale-of-kannur-to-the-aid-of-covid-hospital/articleshow/75258069.cms
5) Mathrubhumi : https://english.mathrubhumi.com/news/good-news/-nighthingale-19-robot-to-help-covid-19-patients-in-kannur-1.4703214
6) Outlook : https://www.outlookindia.com/newsscroll/now-robot-is-part-of-keralas-fight-against-coronavirus/1809934
7) MSN: https://www.msn.com/en-in/video/healthandfitness/robot-in-kannur-hospital-to-assist-healthcare-teams-in-treating-covid-19-patients/vi-BB12XtdL
8) Business India: https://www.businesstoday.in/magazine/technology/tech-rescue/story/403609.html
9) Business Live: https://www.businessonlive.com/startups/58098
10) Asianet News: https://www.youtube.com/watch?v=DefMm-0sIlQ

Figure 13: Kannur Airport

Figure 14: News Reports

Figure 15: News Reports

Outlook

THE NEWS SCROLL

21 APRIL 2020 Last Updated at 9:20 PM | SOURCE: PTI

Now, robot is part of Kerala"s fight against coronavirus

Thiruvananthapuram, Apr 21 (PTI): Not just in China, but in Keralaalso robot is now playing a key role in the health workers' fight against COVID-19, thanks to the innovative spirit of a group of young minds and the support of the state Health Department.

Named "Nightingale-19", the robot is deployed to provide food and medicines among patients at the district coronavirus centre in Ancharuthandi in Kannur district where a large number of cases have been reported.

The special display facility, attached to it, also allows patients to communicate with health workers and their relatives if necessary, the health minister's office here said.

Designed by the students of Chemberi Vimal Jyothi Engineering College with the support of the Health Department, the remote control-operated robot can carry food and water for at least six persons at a stretch.

The machine, which can travel up to one kilometre, distributes food, water and medicine in each room, a department statement said.

Figure 16: News Reports

Figure 17: News Reports

Figure 18: News Reports

Figure 19: News Reports

List of A... APJ Abdu...

Sl.no

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Dr

Dr A F59

Dr G J F2457

Dr CHRI (KTU-F

List of APJ Abdul Kalam Technological University approved PhD Guides

Sl.no	Name	Department	Specialization
1	Dr ANTO SAHAYA DHAS (KTU-F24582)	Electronics and Communication Engineering	Image and Signal Processing, Machine Learning, Electric Vehicle design and Optimization, Smart Grid,
2	Dr SREEKANTH M P (KTU-F39460)	Mechanical Engineering	Additive Manufacturing
3	Dr SENTHILKUMAR R (KTU-F27371)	Electrical and Electronics Engineering	Power Electronics
4	Dr ROSHINI T V (KTU-F5525)	Electronics and Communication Engineering	Biomedical Signal Processing
5	Dr REEMA MATHEW (KTU-F3059)	Computer Science and Engineering	Deep learning, Biomedical image processing,
6	Dr P SRIDHARAN (KTU-F29684)	Mechanical Engineering	Product Design, Mechatronics
7	Dr MANOJ V THOMAS (KTU-F5920)	Computer Science and Engineering	Machine Learning, Data Science
8	Dr G JUSTIN SUNIL DHAS (KTU-F24579)	Electrical and Electronics Engineering	Power Electronics, Smart Grid, Power Systems
9	Dr CHRISTOPHER EZHIL SINGH S (KTU-F35693)	Mechanical Engineering	Nanofluids, Nanomaterials, Nanocomposites, Biofuel, Polymer composites

Vimal Jyothi Engineering College

Research Cell Activities

Sl No	Year	Activity	Count
1	2018-19	Faculty Publications	26
2	2019-20	Faculty Publications	35
3	2020-21	Faculty Publications	27
4	2021-22	Faculty Publications	14
5		Patent Publications	1
6		UBA activities	4
7	2022-23	Faculty Publications	15
8		Patent Publications	19
9		UBA activities	1
10	2023-24	Faculty Publications	3
11		Patent Publications	1
12		UBA activities	2