



7.2.1 Two best practices successfully implemented by the Institution

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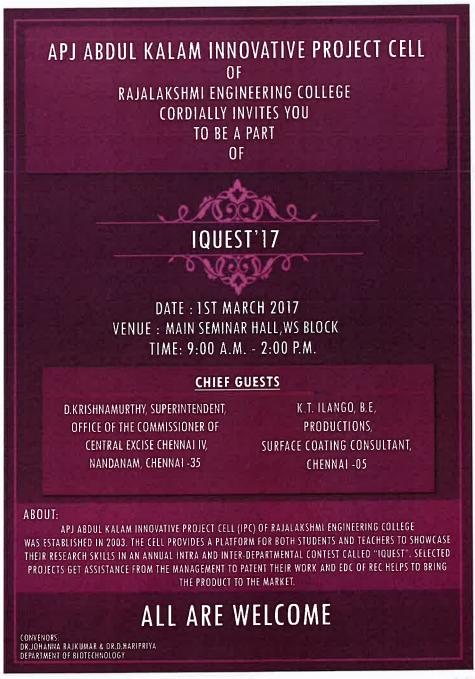


J.D. Humpon

BEST PRACTICE I : A.P.J ABDUL KALAM INNOVATIVE PROJECT CELL – IQUEST

The IPC cell provides a platform for both students and teachers to express their research interests and implement them. Since its inception, IPC conducts a competition every year for the students of all streams called IQUEST.

Broachers of iQUEST



iQUEST'17

S. W. Henry



APJ ABDUL KALAM INNOVATIVE PROJECT CELL

OF
RAJALAKSHMI ENGINEERING COLLEGE
CORDIALLY INVITES YOU
TO BE A PART
OF

IQUEST'18

DATE: 28th FEB 2018
VENUE: MAIN SEMINAR HALL, WS BLOCK
TIME: 8:30 A.M. - 2:00 P.M.

CHIEF GUESTS

Mr. N.S. Prasad, Scientist E, Combat Vehicles Research and Development Establishment, Chennai.

> Mr. Faizal Ahamed, Project Manager, Intellect Design Arena, Polaris, Chennai.

Dr. R. Ethirajan, District Envt Engineer, TNPCB, Chennai.

Ms. B. Sangeetha, Assistant Manager, Orchid Pharma Ltd., Chennai.

ABOUT:

APJ ABDUL KALAM INNOVATIVE PROJECT CELL (IPC) OF RAJALAKSHMI ENGINEERING COLLEGE WAS ESTABLISHED IN 2003. THE CELL PROVIDES A PLATFORM FOR BOTH STUDENTS AND TEACHERS TO SHOWCASE THEIR RESEARCH SKILLS IN AN ANNUAL INTRA AND INTER-DEPARTMENTAL CONTEST CALLED "IQUEST". SELECTED PROJECTS GET ASSISTANCE FROM THE MANAGEMENT TO PATENT THEIR WORK AND EDC OF REC HELPS TO BRING THE PRODUCT TO THE MARKET.

ALL ARE WELCOME

CONVENORS: DR.JOHANNA RAJKUMAR & DR.D.HARIPRIYA DEPARTMENT OF BIOTECHNOLOGY

iQUEST'18

J. L. Leenpr





INNOVATIVE PROJECT CELL IQUEST' 18

WINNERS FROM STREAM I –IQUEST '18 RESULTS (EEE, ECE, CSE and IT)

Stream I

Sl No	Department	Title	Students Name	Position
1	ECE	Medical Database Management and Transmission using Near Field Communication	Vishal B, Suryaprakash M, Yugan Raj S, Yupindra Kumar B, Karthik B II ECE	I
2	IT	Smart City	SUNITHA DEVI, VIDHYA SRI, PREMA, PRIYADHARSHINI II IT	II
3	EEE	SMART CLASSROOM (Dust Free Chalk Board Eraser And Visualizer)	SARAN B, KARTHIK B II EEE	III







INNOVATIVE PROJECT CELL IQUEST' 18

WINNERS FROM STREAM I –IQUEST '18 RESULTS (Auto, Aero, Mech, Mechatronics, Civil Engineering)

Stream II

Sl No	Department	Title	Students Name	Position
1	Mech	Smart Case	J.SHYAM SUNDAR, R.SUBRAMANIAN, S.VENKATASUBRAMANIAN	I
			II Mech	
2	Civil	Development of urban housing with foamed light weight hemp concrete blocks	GAVIN JOSEPH,NIVEDHA DEVI.S IV Civil	II
3	Mech	Universal Gripper	SHENBAGAPANDIYAN.B, SHIVA SHANKARAN.P	III







INNOVATIVE PROJECT CELL IQUEST' 18

INNERS FROM STREAM I –IQUEST '18 RESULTS (Biotech, Chemical and Biomedical)

Stream III

Department	Title	Students Name	Position
CHEMICAL	Removal of Iron, Copper from	LOKESH.B, ANUSH.V, RISHI.R	I
	Ground Water by Aloe Barbadensis (Aloevera) as an External Conditioner		
BIOMEDICA L	A novel method to find changes in body fluids based on weight	AJAY NAIR, DHILEEP V, DANISH RAJKUMAR II BME	II
CHEMICAL	Synthesis of eco-friendly soap using coconut and neem oil	G.KISHORE KUMAR, K.SUJITH KUMAR, M.ABINESH II CHEMICAL	III







INNOVATIVE PROJECT CELL IQUEST' 19

WINNERS FROM STREAM I –IQUEST '19 RESULTS

(Auto, Aero, Mech, Mechatronics)

Stream I

Sl No	Department	Title	Students Name	Position
1	MCT	Smart Elevator	G.Tamilzhselvan, Nitharshan V Ra, IseralGodfrey Sameul. -III year	Prof VN Srinivasan Memorial Award
2	Aero	Satellite drag IonisationThruster	Padmanathan M - III year	I Runner
3	Auto	Low cost Anti theftsystem	Mohamed Asique Salman -III year	II Runner





INNOVATIVE PROJECT CELL IQUEST' 19

WINNERS FROM STREAM II –IQUEST '19RESULTS

(EEE, ECE, CSE and IT)

Stream II

S.NO	Department	Title	Students' Names	Position
1	EEE	Water Motor Controller System	D. Vimal Raj, R. Suriya Narayanan – II year	Prof VN Srinivasan Memorial Award
2	EEE	Traffic light control	Srinithi. L, Selvaganesh. M, Neha Ravikumar, Kaviarasi. R, Dhinesh. K, Raja Bagawatheeswara – III year	I Runner
3	ECE	Third eye assistive cap for visually impaired person	Pravin Kumar KV, Gayathri S- III year	II Runner
4	CSE	Traffic Spike	Srivats. V.S, Shailesh khiran.B, Sudarshan.V – II year	II Runner



WINNERS FROM STREAM III-IQUEST '19 RESULTS

(Biotech, Civil, Chemical and Biomedical)

Stream III

Sl No	Department	Title	Students Name	Position
1	Chemical	Ink from the emission of vehiclesby dissolution of the unburned carbon soot	Anush.V, Lokesh.B, Rishi.R -II year	Prof VN Srinivasan Memorial Award
2	Civil	Ferrock- concrete without cement	Rameez Mohamed N.M, Saran Kumar P, Navaneeth Krishnan P, Mohammed Zameel -IV year	I Runner
3	Biotech	Value Added Product from PalmyraFruit	Bharathi, Jayalakshmi H -III year	II Runner

S.D. Hump





RAJALAKSHMI ENGINEERING COLLEGE APJ ANDUL KALAM INNOVATIVE PROJECT CELL IPC 2019-20

IQUEST' 20

WINNERS FROM STREAM I –IQUEST '22 RESULTS

(Auto, Aero, Mech, Mechatronics)

SL no	Batch-Student Names	Department	Roll No	Yr/Sem	Dept	Rank
1	Praveen Kumar.T.R	AERONOTICS	201614037	IV / VIII	Monitoring and	g 1 -FIRST
	Vinoth.S		201614053		diagnosis of paddy disea using UAV	se
_	Y		171201020	TITATI	G 4	
2	Janani.I.T	MERCHARDONICO	171201028	III/VI	Smart	4 CECOND
	Lokesh.P	MECHATRONICS	171201031	9	Assistant	2-SECOND
	Sachayanthan.V		171201506		ВОТ	
3	Kanishkar.H		181101078	II /IV	Floating Bo	oat
	Lokesh	MECHANICAL	181101093			2-SECOND
	Kumar.S					
4	Shrinivasan.S		180101046	II/IV	The	
	Sivaprakash.S	AERONOTICS	180101048		Scrub	3-THIRD
	Srinath.B		180101049		Drone	

Stream I

3.0. Leempon



STREAM 2 RESULTS (EEE, ECE, CSE, IT DEPTS)

Sl. No	Project Title	Students' Name	Year & Dept.	Place	
1	Utilization of CO2	Rohith Ganesh N			
	from Industrial &	Reena K	III EEE	FIRST	
	Automobile Emissions	Madhusudhan R	III EEE	11101	
		Naveen V			
		Surya Prakash B			
2	Piezoelectric Safety Shoe	Surya Prasad K	III EEE SEC	SECOND	
		Vimal Kumar R			
		Venkateshwaran A			
		Balachandran P S		THIRD	
3	Smart Glove Mouse	Daniel Leonard Andrew B	III ECE		
		Fraser Kagoo E			
		T C Dinessh			
4	Accident Detection	Sakthi T M		THIRD	
	and prevention	Rajalakshmi V	II CSE		
	system	Ramapriya R			

S. D. Hungan



STREAM 3 RESULTS (BME, BT, CHEM & CIVIL ENGG)

Sl No	Title	Students Names	Year	Dept	Award
1	Electrolyte monitoring and alerting system	Nishanthini R Mallika Senthil Nithaashree S Neppalli Satish Chowdary	II A	Biomedical Engg	Prof VN Srinivasan Memorial Award
2	Cost effective and light weight precast modular toilets.	Thulasi ram B Vishal Karthik N Manikandan JR	III	Civil Engg	First Runner Up
3	Preparation & characterisation of biodegradable food package material using artocarpus heterophyllus rags and chitosan	Krishna Priya K	M.Tech (II yr)	Biotech	Second Runner Up







INNOVATIVE PROJECT CELL

IQUEST' 22

WINNERS FROM STREAM I –IQUEST '22 RESULTS

(Auto, Aero, Mech, Mechatronics) Stream I

SI	Department	Title	Students Name	Position
No				
	Mechanical	Solar Powered UAV	SRINATHREDDY.S	1
1	Mechanical	(Solar Avion)	(III - 191101143)	1
		Robotic Arm With	R.ARAVIND,	
2	Mectronics	Gesture Control Teach Pendant	H.SANJAY,	2
			M.SANJAY	
			HARISH JAYARAJ. P	
2	Mechanical	Assistive Shoe For Ankle	(II -201101048)	3
3	Mechanical	Equinus.	YASHWANTH RAJ	
		SAN ENGINEERING S	(II-201101147) 5. No. 100	



RAJALAKSHMI ENGINEERING COLLEGE

THANDALAM, CHENNAI- 602105

INNOVATIVE PROJECT CELL

IQUEST' 22

WINNERS FROM STREAM II –IQUEST '22 RESULTS

(CSE, IT, EEE, ECE, CSBS, AIML)

Stream II

S.NO	O Department Title Stud		Students' Names	Position
1	EEE	Wind charged electric vehicle	Badrinarayanan KVR, Balaganesh J, Amudhan.V	Prof VN Srinivasan Memorial Award
2	IT	QR Ticket Reservation system	Srinivasan S Tamilarasan Sharmila M Narayanan R	I Runner
3	AN AUTONOMOUS INSTITUTION	Smart seed sowing robot	Sathya Narayanan SK Santhoshkumar.R Raya Rohith Yadav PRINCIPAL	II Runner



RAJALAKSHMI ENGINEERING COLLEGE

THANDALAM, CHENNAI- 602105 INNOVATIVE PROJECT CELL

IQUEST' 22

WINNERS FROM STREAM III-IQUEST '22 RESULTS

(BT, CHEM, BME, FT, CIVIL)

Stream III

Sl No	Department	Title	Students Name	Position
1	ВМЕ	Multi modality Pre diagnostic tool for autism	V.A Sairam Nithila J	Prof VN Srinivasan Memorial Award
2	ВТ	Chocolina	Surya AV, Suparna P, Vishal Amith K, Sridevi.R	I Runner
3	FT	Development of iron fortified nutrichew chocolate	Sreemathi.G Yamuna P	II Runner





PATENTS FILED

Some of the Projects submitted to IPC cell were taken to next level for Patents and are as follows.

PRIZE WINNER OF INNOVATIVE PROJECT CELL - IPC 2014

	Department of Biotechnology			
SI No.	Innovative Project Titles	Name of the student	Year	PRIZE WINNER
1	Effect of cellular phone radiations in the physiology of soil microbes - Lactobacillus Sp	J.Jaidev Aswin.T Manisha Mohandoss	III	FIRST
2	Isolation Of Actinomycetes And Bacteria for Keratinase Extraction	Samdani.A Swathi.S	III	SECOND
3	A study of digestive enzyme inhibitors isolated from natural sources against stored product pests	Akshaya Lakshmi.M.M Dhanushree.R	IV	THIRD



J. U. Hunge

The project titled "A study of digestive enzyme inhibitors isolated from natural sources against stored product pests" which won Third Prize in IPC 2014, was filed for patent grant in the year 2015 (Patent App No: 5133/CHE/2015) as "GUAVA LEAF EXTRACT – STORED FOOD GRAIN INSECTICIDE", and received Patent Grant on 24/02/2022.

FORM I

700012970

(FOR OFFICE USE ONLY)

THE PATENT ACT 1970 (39 of 1970) &

The Patents Rules, 2003
APPLICATION FOR GRANT OF PATENT
(See section, 7, 54 & 135 and Rule 20 (1))

Application No. 5133 CHE 2015
Filing Date: 25 09 2015
Amount of Fees Paid: 8800 —
CBR No: 20244

Signature:

1. APPLICANT		
me	Nationality	Addres

		Tamil Nadu, India	
2. INVENTOR			
Name	Nationality	Address	
Dr. V. Gayathri	An Indian National	Department of Biotechnology Rajatakshmi Engineering College Thandalam Chennai-602 105 Tamil Nadu, India	
Dr. Johanna Rajkumar	An Indian National	Department of Biotechnology Rajalakshmi Engineering College Thandalam Chennai-602 105 Tamit Nadu, India	
R. Dhanusree	An Indian National	Department of Biotechnology Rajalakshmi Engineering College Thandalam Chennai-602 105 Tamil Nadu, India	
M. M. Akshya Lakshmi	An Indian National	Department of Biotechnology Rajalakshmi Engineering College Thandalam	

Form 1 of Patent application

AN AUTONOMOUS INSTITUTION *

2. No. Herriban

Chennui-602 105 Tamil Nadu, India





भारत सरकार GOVERNMENT OF INDIA पेटेट सम्पंतव THE PATENT OFFICE पेटेंट प्रमाणपत्र PATENT CERTIFICATE

조제품 (0441)(8945 SL NO



चेटेट सं. / Patent No.

390224

street H. / Application No.

5133-CHE/2016

पहल करने की तारिख / Date of Filing

25/09/2015

पेटेटी / Patentee

RAJALAKSHMI ENGINEERING COLLEGE

प्रमाणित किया जाता है कि चेटेटी को उपरोक्त आवेदन में नवप्रकरित GUAVA LEAF EXTRACT - STORED FOOD GRAIN INSECTICIDE जाना अविष्यार के लिए, पेटेंट ऑवनियम, १९०० के उपलंधों के अनुसार आज तारीख 25th day of September 2015 में चैस वर्ष की संबंधि के लिए पेटेंट अनुप्तन किया नवा है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled GUAVA LEAF EXTRACT - STORED FOOD GRAIN INSECTICIDE as disclosed in the above mentioned application for the term of 20 years from the 25th day of September 2015 in accordance with the provisions of the Patents Act, 1970.



Officer Great 2412/2022

ENGINEER

AUTONOMOUS

INSTITUTION

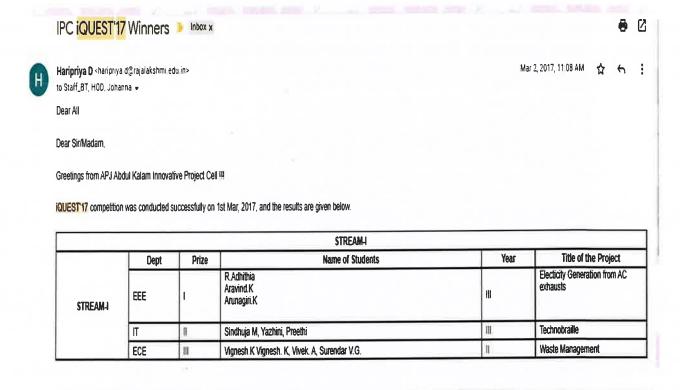
- pri têr à miner à lier de, de pri our rai une le Jest day af September 2017 di die pais trem une di qui fin de disk Nate. The fees for renewal of this patent, if it is to be maintained and fall i has fallon due on 29th day of Englander 2017 and on the care day is overy your thiruster.

Patent Granted on 24/02/2022

5. w. Herryan



Another IPC project titled "A study on wound healing properties of Electrospun chitosan-PVA nanofibers" as A NOVEL ELECTROSPUN NANOFIBROUS SCAFFOLD TO TREAT SKIN BURN (Application No: 201941025890) dated 28-06-2019.



STREANHI					
	Dept	Prize	Name of Students	Year	Title of the Project
E	зт	Ï	Gomathi. P	I M.Tech	A Study On Wound Healing Properties Of Electrospun Chitosan-Pva Nanofibres

iQUEST '17 Project filed for Patent

AN AUTONOMOUS INSTITUTION AN Chennal Color

11/3/22 8 11 PM



Office of the Controller General of Patents, Designs & Trade Marks Department of Industrial Policy & Promotion, Ministry of Commerce & Industry, Government of India

(http://ipindia.nic.in/index.htm)



Application Details

APPLICATION NUMBER

201941025890

APPLICATION TYPE

ORDINARY APPLICATION

DATE OF FILING

28/06/2019

APPLICANT NAME

RAJALAKSHIMI ENGINEERING COLLEGE

TITLE OF INVENTION

A NOVEL ELECTROSPUN NANOFIBROUS SCAFFOLD TO TREAT SIGN BURNS

RELD OF INVENTION

TEXTILE

E-MAIL (As Per Record)

ipr@puthrans.com

ADDITIONAL-EMAIL (As Per Record)

ipr@puthrans.com

E-MAIL (UPDATED Online)

REQUEST FOR EXAMINATION DATE 22/02/2022

PUBLICATION DATE (U/S 11A)

01/01/2021

Application Status

APPLICATION STATUS

Application Awaiting Examination

View Documents











Filed Published RQ Filed Under Examination Disposed



in case of any discrepancy in status, bindly contact ipo-helpdesh@nic.in

Patent filed on 28/06/2019



J.D. Herey

PRINCIPAL RAJALAKSHMI ENGINEERING COLLEGE AN AUTONOMOUS INSTITUTION

THAT PATEM CHENNAL - 602 105.

One more IPC project titled "Preparation & characterisation of biodegradable food package material using *Artocarpus heterophyllus* rags and chitosan" which was submitted to IPC iQUEST '18 and won Second Runner Up was taken for patent filing with the title as "BIO REFINERY WASTE BASED BIODEGRADABLE PACKAGE FILM AND METHOD OF PRODUCING THEREOF" with application no 202241037898 dated 30-06-2022.





Application Filing Receipt

Government of India Patent Office

Intellectual Property Office Building, G.S.T. Road, Guindy, Chennai -600032

Phone- 044-22502081-84 Fax: 044-22502066

e-mail: chennai-patent@nic.in

CBR Number : 26128

Application Type: ORDINARY APPLICATION Priority Number: Priority Date:

Priority Country: Not Selected

CBR date: 30-06-2022

To

RAJALAKSHMI ENGINEERING COLLEGE

Elizabeth Puthran, Puthran & Associates, B-3, Kesavan Orchid, S/7, North Mada Street, Sri Nagar Colony, Saidapet, Chennal 600015 Tamil Nadu, India

Received documents purporting be to an application for patent numbered 202241037898 dated 30-06-2022 by RAIALAKSHMI ENGINEERING COLLEGE of Rajalakshmi Nagar, Thandalam, Chennai - 602 105, Tamil Nadu, India, relating to BIO REFINERY WASTE BASED BIODEGRADABLE PACKAGE FILM AND METHOD OF PRODUCING THEREOF together with the Complete and fee(s) of \$1600 (One Thousand Six Hundred only).

Note:

- In case of Patent Application accompanied by a Provisional Specification, a complete Specification should be filed within 12 months from the date of filing of the Provisional Specification, failing which the application will be deemed to be abandoned under Section 9(1) of the Patent Act, 1970.
- 2. You may withdraw the application at any time before the grant of patent, if you with so. if, in addition to withdrawal, you also wish to prevent the publication of application in the Patent Office Journal, the application should be withdrawn within lifteen months from the date of priority of date of filing, whichever earlier.
- 3. If not withdrawn, your application will be published in the Patent Office Journal after eighteen months from the date of priority of date of filing, whichever is earlier.
- 4. If you with to get your application examined, you should file a request for examination in Form-18 within 48 months from the date of priority or date of filing, whichever is earlier, falling which the application will be treated as withdrawn by the applicant under Section 11(8)(4) of the Patent Act, 1970.

Patent filed on 30-06-2022.



5. D. Heerfer

Sample Photos Taken during IPC Competition



Principal and IPC members Listening to Students Presentation



AN AUTONOMOUS INSTITUTION

Students Explaining Project to Jury Members PRINCIPAL

ENGINEERING COLLEGE

AN AUTONOMOUS INSTITUTION

THANDALAM, CHENNAL 602 105

BEST PRACTICE 2- IMPARTUS

The principal goal of the IMPARTUS Lecture Capturing System is to improve the Teaching-Learning Process.

IMPARTUS camera has been fixed in 65 classes for the benefit of students. Students get access to the classroom video teaching materials through an online portal with authentication "anywhere, anytime" for gaining deeper knowledge of their subjects.





Photograph of IMPARTUS camera for video capturing

J. W. Hempson



List of classrooms with impartus LCS

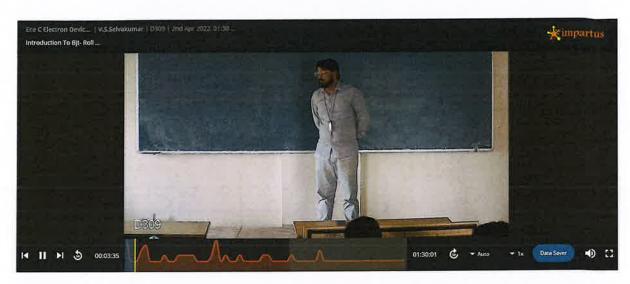
S.No	Class room number	Class
1	A109	III CSE A
2	A208	IV IT A
3	A209	IV IT B
4	A210	II CSBS
5	A211	III CSBS
6	A302	III CSE C
7	A303	III CSE D
8	A304	III CSE E
9	A308	IV CSE B
10	B410	II EEE A
11	B411	II EEE B
12	B412	III EEE A
13	B415	III EEE B
14	B416	IV EEE
15	B417	IV EEE
16	B419	II R&A
17	B422	II CHEM
18	B423	III CHEM
19	B424	IV CHEM
20	B425	III BT B
21	B426	III BT C
22	D202	I EEE A

	Class	
S.No	room	Class
	number	
23	D203	I EEE B
24	D204	I IT A
25	D205	I IT B
26	D209	I FT
27	D210	I AIML A
28	D211	I AIML B
29	D302	I ECE A
30	D305	I ECE B
31	D309	I ECE C
32	D31 0	I ECE D
33	D311	I MCT
34	D402	I AERO
35	D405	I R&A
36	D409	I CSBS
37	D410	I CIVIL
38	D411	I CHEM
39	D510	I BT A
40	D511	I BT B
41	D512	I BT C
42	D610	I MECH A
43	D611	I MECH B
44	D612	I MECH & AUTO

	Class		
S.No	room	Class	
	number		
45	D702	I CSE A	
46	D703	I CSE B	
47	D704	I CSE C	
48	D705	I CSE D	
49	D709	I CSE E	
50	D710	I BME A	
51	D711	I BME B	
52	A102	II CSE A	
53	A103	II CSE B	
54	A104	II CSE C	
55	A105	II CSE D	
56	A108	II CSE E	
57	A110	III CSE B	
58	A202	II IT A	
59	A203	II IT B	
60	A204	III IT A	
61	A205	III IT B	
62	A305	IV CSE A	
63	A309	IV CSE C	
64	A310	IV CSE D	
65	A311	IV CSE E	



J. W. Heen



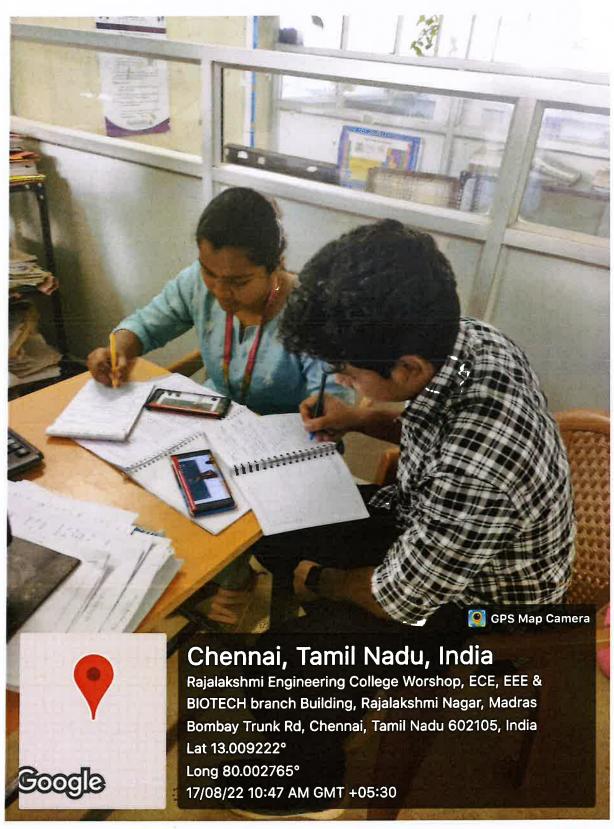
Screen shot of Faculty Teaching using IMPARTUS



Login list of students using IMPARTUS



3. w. temps



Students using IMPARTUS LCS 5. 10. Heavy









RAJALAKSHMI ENGINEERING COLLEGE (AUTONOMOUS)

Institution Policy on Divyangjan

Objective

To provide an environment that gives the same quality education for differently-abled students and offer all the supports and guidance so that they also come out on par with other students.

Policies and Measures

- During the college admission, the physically challenged students are not discriminated in anyway.
- Physically challenged students are also given same opportunities in the co-curricular activities and any additional guidance needed for them is provided.
- In the extra-curricular activities such as sports, games, NSS etc., same openings are given with any additional support need by them.
- Their progress in all the activities is monitored by the student counselor who constantly encourages them to go ahead and participate with full enthusiasm.
- The placement opportunities are also given in the same way as for other students.

2.10. Levels

PRINCIPAL
RAJALAKSHMI ENGINEERING COLLEGE
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THANDALAM, CHENNAI - 602 105.

AN AUTONOMOUS INSTITUTION AN AUTONOMOUS INSTITUTION





Infrastructure Facilities

For the hassle-free, safe movement of the physical challenged students, the college provides all the required facilities.

There are five buildings housing class rooms and laboratories and one building housing the Centre for Sponsored Research and Consultancy and the college library. Five buildings are provided with lift facility. There is a Tech lounge accommodating large number of computers and a separate workshop for lathes, drilling and other machinery. All the buildings are provided with rams in the main entrance or there is side entrance, without steps, through which one can walk through without any help. In every big rest room there are barrier free wash basins and there are toilets provided with holding bars on the walls for aiding the disabled persons. If any student requires reclining posture and needs to stretch his legs while sitting in the class rooms and attending lectures, special chairs are provided. In case, a physically challenged student is comfortable attending lectures in the ground floor, his classroom itself shifted to ground floor. A wheel chair is also available for any urgent movement of such students.



2.10. Kempin

Institutions