

INSTITUTE OF ENGINEERING AND TECHNOLOGY
(Approved by AICTE, New Delhi | Affiliated to JNTUH, Hyderabad | Accredited by NAAC) Hyderabad | PIN: 500068

EDC CELL

EDP-2019-20

SNO	ACTIVITY	STATUS	REMARKS	
1	Extension of GHMC project	30-05-2019	Third party consultation Project	
2	Basics Of Ventilation	31-08-2019	MR Mohhammed Imran	
3	Entrepreneur Talk By Mr. Kiran Gali Founder and CEO Number Mall	19-09-2019	Interactive session by Mr. Kiran Gali at SIET	
4	Under 25 Summit Sreyas Institute	05-10-2019	Celebrities attended program 1. Vineeth Vincent 2. Sidharth Bendu 3. Sharath Chandra 4. Tharun Bhascker 5. Rakesh Varre Aavyshkaar	
5	Innovative Product Display: Sreyas Mobile Air Conditioner (SMAC)	15-11-2019	Venue at Hotel Park Hayath,Hyderabad	
6.	Under TEQIP-III collaborative sponsored projects with world bank	Jan 2020	Meeting held at Delhi	
7.	Under TEQIP-III collaborative sponsored projects with JNTUH and near by colleges	Feb 2020	Meeting held at JNTUH	
8.	Ideathon	29-02-2020	Mr.Chinthakanid Mallesham	
9.	Igniting Studentpreneurs	29-02-2020	Mr Ravi Teja Gupta	
10.	Campus Start Ups- Need Of The Hour	07-03-2020	Mr. Rajinikanth Aluvalu	
11.	Goal Setting .	07-03-2020	Prof ML Sai Kumar	

EDC CELL Co-Ordinator



Asures Principal

PRINCIPAL SREYAS INSTITUTE OF ENGG.&TEC. 9-39, Sy.No: 107, Tattiannaram (V) GSI, Bandlaguda, Nagole, Hyd-68.

GREATER HYDERABAD MUNICIPAL CORPORATION

Office of the Superintending Engineer Quality Control Circle GHMC, Hyderabad

Lr.No. SE(QCC)/GHMC/2019/ 2095

Date:30.05.2019.

Gentlemen,

Sub:

GHMC - Engg. - SE, Quality Control Circle- Third Party Quality Control Agency Services agreement period extended - Req.

Ref:

- 1. Agreement No. 4/SE/QCC/GHMC/2018-19, Date: 01.06.2018.
- 2. Willingness letter of TPQC Agency.
- 3. Note approval of the Commissioner, GHMC Dated:27.05.2019.

Under Clause 11 of General Conditions of Contract in the Agreement, the time schedule for the completion of job is extended for a period of one year i.e., up to 20.05.2020. The Third Party Quality Control Agency is requested to attend the office of the Superintending Engineer, Quality Control Circle, 4th Floor, GHMC along with Rs.100/- Bond Paper to sign the Supplemental Agreement for extension of the time up to 20.05.2020.

Further, you are requested to submit the Bank Guarantee for Rs.2.00 Lakhs (Rupees Two Lakhs only) valid up to 20.05.2020.

Superintending Engineer, Quality Control Circle, & GHMC.

To,

Sreyas Institute of Engineering & Technology, D.No.9-39, Beside Indu Aranya, Bandlaguda, Nagole, Tattiannaram, Hyderabad – 500068.

Copy to the Chief Engineer(HA), GHMC for favour of information.

Copy to the Chief Engineer(M), GHMC for favour of information.

Copy to the Chief Engineer(P), GHMC for favour of information.

Copy to the Chief Examiner of Accounts, Head Office, GHMC.

Copy to Zonal Examiner of Accounts, GHMC.

Copy to all the Superintending Engineers- P (SZ), Charminar Zone of GHMC.

Copy to the Executive Engineers of Divisions – 10 & 11, T & T,PD-SZ-I, PD-SZ-II, North Tank Division, HSLD of GHMC.

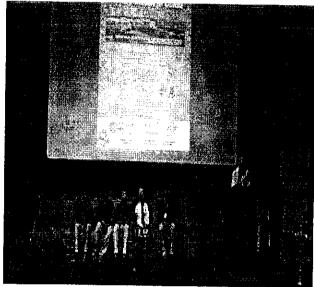
Copy to the Executive Engineer of Quality Control Division - I GHMC.



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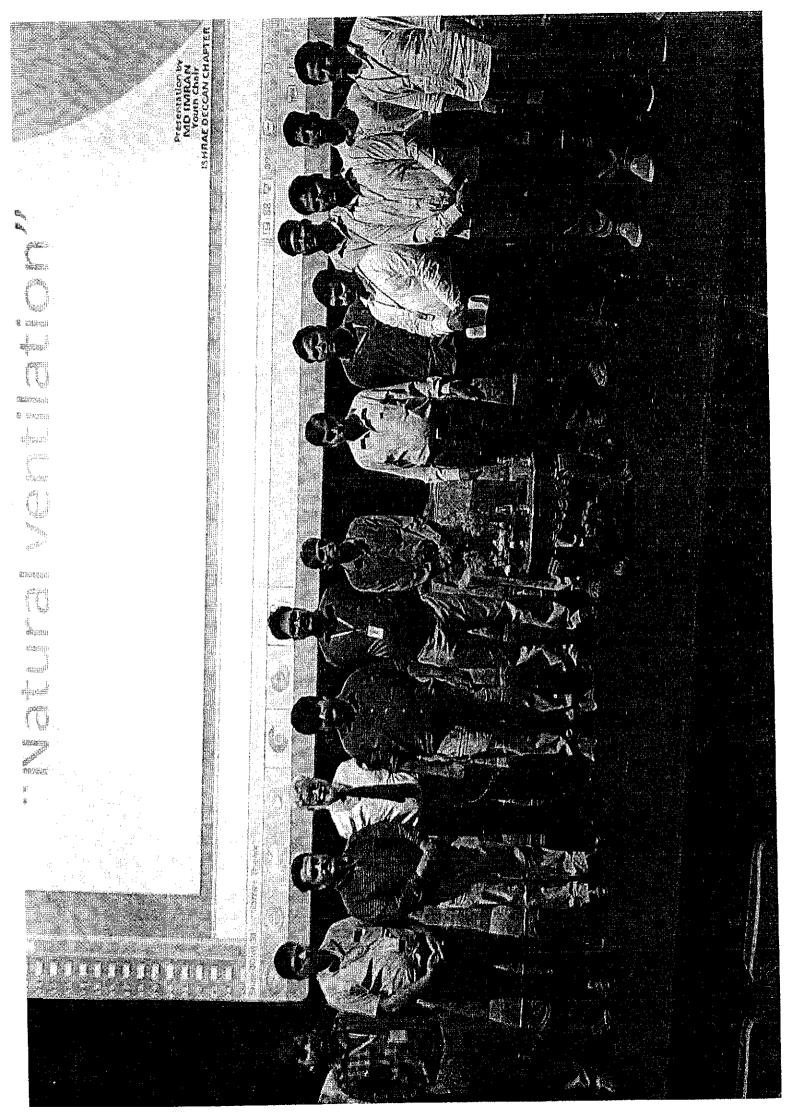
A Summary Report on Technical talk on 'Basics of Ventilation conducted by EDC Program in collaboration with ISHRAE Deccan chapters at SIET on 31-08-2019

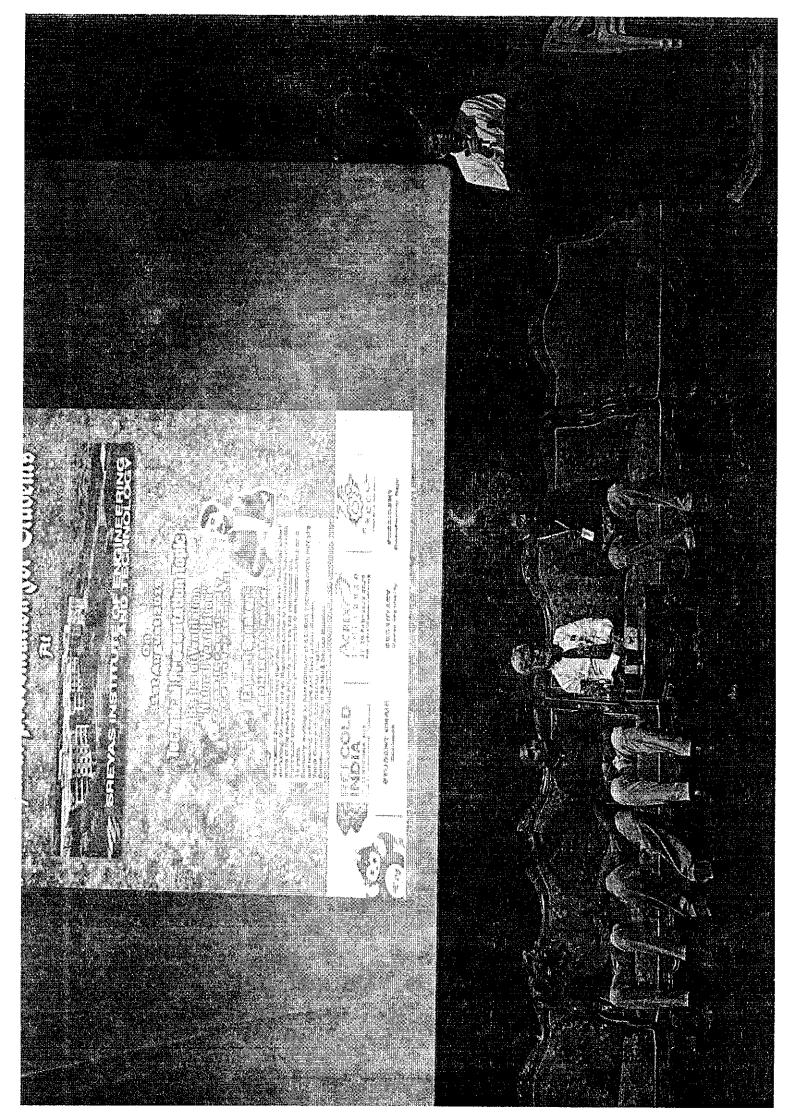






Today at sreyas institute of engineering and technology, conducted Tech-Talks on "Basics of VENTILATION" by "ISHRAE (Indian Society for Heating Refrigeration and Air-conditioning Engineers)", Speaker MD Imran — Youth Chair ISHRAE Deccan chapter. ISHRAE Deccan Chapter President Mr. Ramchander Raju Addhipalli Inaugurated the event and also elected Students Committee for the year 2019-2020 in the presence of Vice chairmen Mr. Anantula Hriday Reddy, Principal Dr. Suresh Akella, Head of the Department Mr. Y. Krishnaiah and Faculty Coordinator Mr. Kasuba Sainath.







SREYAS INSTITUTE OF ENGINEERING AND TECHNOLOGY HYDERABAD

Report

On

"Entrepreneur Talk"

Ву



Mr. Kiran Gali

Founder and CEO Number Mall

19th September 2019|10:00AM |SREYAS Auditorium

Organized

By







Chief Patron



Sri Vinay Kumar Reddy, Chairman

Patrons



Sri Ch. Ravindranath Yadav, Secretary



Sri N. Sharath Reddy, CEO



Sri A. Hriday Reddy, Vice-Chairman



Dr. Suresh Akella Principal



Mr. K Sainath EDC Head



Mrs. G Vijaya Kumari Director, J-Hub, JNTUH



Mr. Praveen B Ronad SPoC, SREYAS J-Hub



Invitation to give entrepreneur talk on 19th September

4 messages

Praveen R praveen.r@sreyas.ac.in>
To: Kiran Kumar Gali <kiran@numbermall.com>

Wed, Sep 18, 2019 at 12:06 PM

Respected Sir

Good Afternoon,

I would to invite you for the Entrepreneur Talk which is scheduled on 19th September 2019, Thursday at 10:30 am. So kindly accept our request. Following are the details

Date: 19th September 2019

Time: 10:30 AM

Venue: Sreyas Auditorium

Total No of Students Registered: 301

Kindly let me know your requirements to organize talk, so that we can make necessary arrangements.

Please click below link to know our college loaction

https://g.page/SreyasInstitute?share

Thanking you,

Praveen B Ronad, B.E., M.Tech

Assistant Professor
Department of Mechanical Engineering,
Sreyas Institute of Engineering and Technology,
Hyderabad-500068
Contact No:9542097406, 8050624412

E-Mail ID: praveen.r@sreyas.ac.in, praveenbronad@gmail.com

Wed, Sep 18, 2019 at 1:01 PM

Confirmed.

Thanks & Regards.

Kiran Gali

Founder & CEO

Mobile: +91.98854 39954

https://in.linkedin.com/in/galikiran

NumberMall Private Limited

Digital Supply Chain Platform for FMCG Brands

Awarded "IMAGES Most Admired Food Start-up of the Year 2018" by IMAGES GROUP

6th fastest growing technology company in India to win TechFast50IN 2018 by Deloitte India

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https://mail.google.com/mail/u/02ik=8f5f85ccc8&view=nt&search=all&nermthid=thread-a%3Ar45483477345443960330 alm-i-----



Before Event

- 1. A Single Point of Contact (SPoC) meeting was held at JNTUH on 03rd August 2019, Director of Jub informed us about 25 entrepreneurs wish to give talk to colleges.
- 2. J-Hub released request form for colleges on 27th august 2019
- 3. Submitted our response as 19th September 2019 and target students of 300 across all branches
- 4. We received confirmation message from J-Hub on 11th September 2019
- 5. Prepared Circular and online registration form to all students on 13th September 2019
- 6. Meeting was held among J-Hub Faculty Committee to discuss about execution of event
- 7. Meeting was held among EDC and J-Hub students members to allot works
- 8. Registered Students details

Sl No	Department	No of Registered Students	
1	Mechanical Engineering	156	
2	Electronics and Communication Engineering	84	
3	Computer science Engineering	51	
4	Civil Engineering	10	
Total N	Total No of Students Registered 301		

9. Prepared of invitation letters and invited all HoDs for event



10. Preparation of banner







SREYAS EDC

SREYAS INSTITUTE OF ENGINEERING AND TECHNOLOGY

HYDERABAD

Management, Faculties & Students

Heartily Welcomes Mr. Kiran Gali

Founder and CEO of Number Mall



Entrepreneur Talk 3

19th September 2019 | Time: 10.00 am | Venue: Sreyas Auditorium



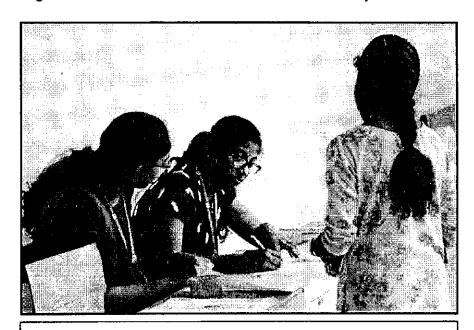
11. Schedule of event

Time	Time line of Events		
10:00 am	Students Signs, receives a copy of book		
	Students enters into the auditorium		
10:15 am	Receiving of Speaker by Principal and organizers		
	 Introducing speaker to committee members 		
10:20 am	Short Meeting in the principal chamber		
	 Short discussion about SREYAS and its achievements 		
	 HoDs and placement officer are requested to attend this 		
	short meeting		
10:30 am	Dignitaries enters auditorium		
10:35 am	am Brief address by Management		
10:40 am	Brief address by Dr. Suresh Akella, Principal and felicitation to		
	the Speaker		
10:45 am to 12:00 pm	Entrepreneur Talk begins by Mr. Kiran Gali, Founder and CEO,		
	Number Mall		
12:00 pm	Questions by students		
12:05 pm	Thank you note by Mr. K Sainath, EDC Coordinator		
12:15 pm	Group Photo with Dignitaries		
12:20 pm	Dignitaries leaves the auditorium		
12:25 pm	Collection of online and offline feedback		
12:40 pm	Students leaves auditorium		



On the Day of Event 19th September 2019 10:00 AM

1. Students Signed in the Form and Received books "Made in Hyderabad"



Student Coordinators Registration Process







2. Arrival of Guest



Mr. Kiran Gali, Founder and CEO of Number Mall was received by Sri A. Hriday Reddy,

Vice-Chairman and Dr. Suresh Akella, Principal

Along with Mr. K. Sainath, EDC Head and Mr. Praveen B Ronad, SPoC, J-Hub from SREYAS



3. Short Meeting at principal Chamber





Vice-Chairman Sir and Dr. Suresh Akella, Principal had Short Meeting with Guest

4. Event Pictures



Speaker lightening the lamp with Vice-Chairman Sir, Principal and EDC Coordinator



20th September 2019

SREYAS INSTITUTE OF ENGINEERING AND TECHNOLOGY HYDERABAD

CIRCULAR

This is to inform you that, Entrepreneur Development Cell (EDC) of SREYAS in association with **Under25** is organizing **Under25xSreyasInstitute** on **5th October 2019**. Find details of the event below:

Date: 05th October 2019

Venue: SREYAS INSTITUTE OF ENGINEER AND TECHNOLOGY

About:

Under 25 is a go-to platform to inspire millions of students for the discovery of career opportunities and giving them a true industrial experience. This event is open to students Under 25 is a go-to platform to inspire millions of students for the discovery of career opportunities and giving them a true industrial experience. This event is open to students from all colleges. Our main flagship property is the 'Under 25 Summit', which is India's Largest Youth Festival! The Under 25 Summit has always been the one-stop congregation for youngsters from all over the country who exhibit their talents in Technology, Music, Fashion, Design, Entrepreneurship and many, many more! With top-notch curation, they bring all of these fields together through inspirational speaker sessions, intellectual workshops, trending panel discussions and interactive experience zones for our attendees. from all colleges. The main flagship property is the 'Under 25 Summit', which is India's Largest Youth Festival! The Under 25 Summit has always been the one-stop congregation for youngsters from all over the country who exhibit their talents in Technology, Music, Fashion, Design, Entrepreneurship and many, many more! With top-notch curation, they bring all of these fields together through inspirational speaker sessions, intellectual workshops, trending panel discussions and interactive experience zones for our attendees.

For More Information Contact:

Mr.K.Sainath

Associate Professor of Mech &

EDC Head SREYAS

9848093630

sainath.k@sreyas.ac.in

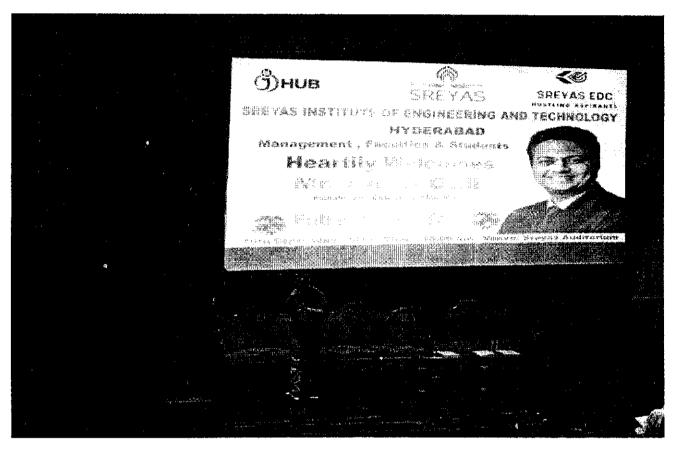
× Principal

Copy to:

- 1. Chairman's Desk
- 2. Secretary Desk
- 3. Principal
- 4. HOD's
- 5. EDC
- 6. All Staff



Talk by Mr. Kiran Gali sir







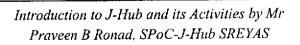


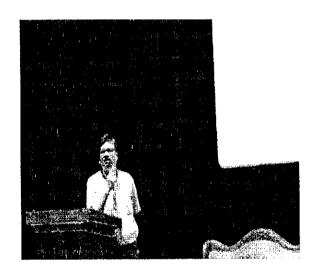
Questions and answer session











Introduction to EDC its Activities by Mr.K. Sainath, EDC Head SREYAS





Mr. Kiran Gali, Founder and CEO of Number Mall was Felicitated by Sri A. Hriday Reddy, Vice-Chairman and Dr. Suresh Akella, Principal



Vote of Thanks by Mr. K. Sainath, EDC Head SREYAS



Selfie picture by Speaker



In Pictures: Mr.Kiran Gali, Founder and CEO of Number Mall,

Vice-Chairman Sir, Principal Sir

Mr. Y. Krishna, HoD of Mechanical Engineering

Mr. K.Sainath, EDC Head

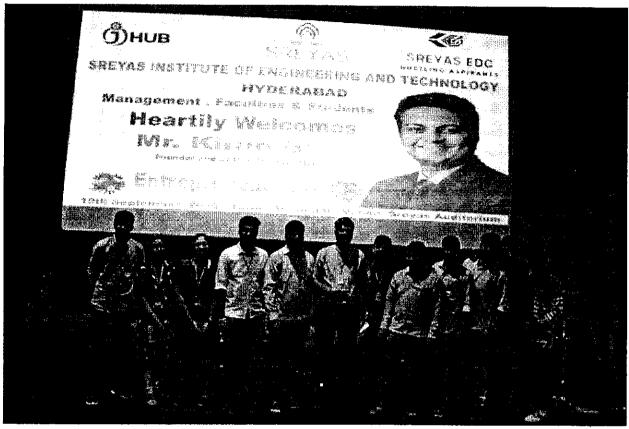
Dr. Rohit Raja , CSE Dept

Mr. Teja, CSE Dept

Mr. Praveen B Ronad, SPOC J-Hub

Faculty Coordinators and Students with Books





Students Coordinators with Organizers



No of Students Attended

Sl	Department	No of	No of	No of Spot	Total
No		Registered	Students	Registrations	No of
		Students	Registered		students
			and		Attended
	,		Attended		the
					Event
1	Mechanical	156	106	37	143
	Engineering				
2	Electronics and	84	26	59	85
	Communication				
	Engineering				
3	Computer science	51	26	06	32
	Engineering				
4	Civil Engineering *	10	-	-	-
		301			260

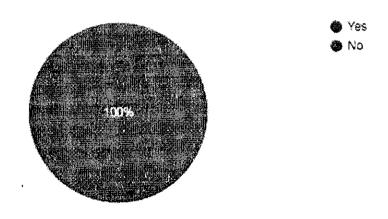
^{*} Civil Department Students attended other event which was on same day

FEEDBACK ANALYSIS OF ATTENDED STUDENTS*

*As on 21/09/2019 58 students submitted feedback

Did you like the talk?

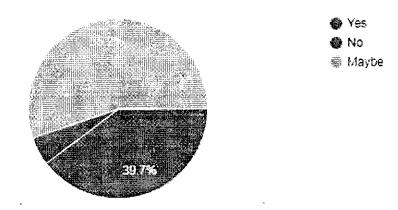
58 responses





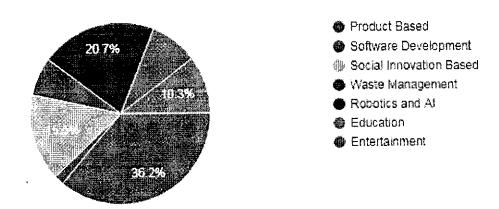
Do you want to start-up a company?

58 responses



Do you wish to start a company at Sreyas? If yes which domain?

58 responses



Do you have any innovative idea of product? If you have please mention, so that we can connect you to the speaker and Telangana State Innovation Council for further approval.

- No
- Not yet
- Not yet

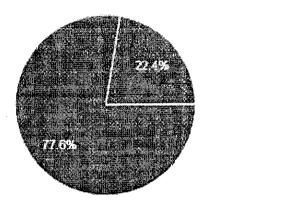


- Nothing. I'm satisfied.
- No idea
- Nothing
- I will discuss regarding it with the faculty.
- Technology useful for disabled persons
- Not now
- Automatic juice machine
- · Software related to problem faced by public
- May share later
- No
- Electric hybrid engine
- No idea present
- Water supply to slums
- I have an **idea to grow trees faster** then the growing time of trees .my project is PLANTAE VITA HELIOUS..
- I have
- Yes
- CUSTOM BIKE BUILDING
- · No. I mean that may be in future
- Plastic into the power generation
- Police
- An educational earning application
- No idea now further i will think
- As of now no idea
- Not yet...I'm working on it.
- Energy resources
- no
- Private space orgination
- Robot
- . I don't have particular ideas but i want to do the best events in our campus
- An example is printer. If any print is wrong if we develop software in such a
 way that once again we can get back the white sheet of paper.
- No as of now
- Now I am working on a project, but is that already created. I will plan for a new project innovatively; I think I take time...
- Generating electricity by vehicles



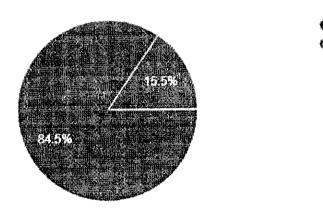
Do you know about J-Hub?

58 responses



Do you know about EDC?

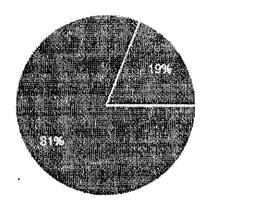
58 reaponses





Do you want to join EDC?

58 responses

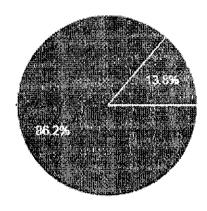


Yes

en 🚳

Do you want to join J-Hub?

58 responses

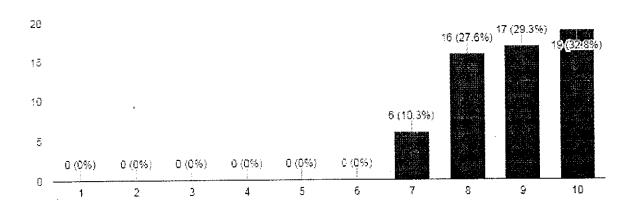


Yes



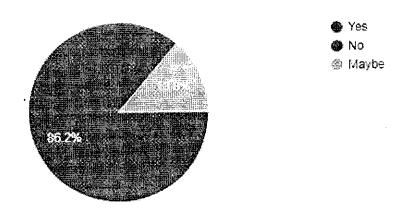
How you rate overall session?

59 restychises



Will you attend such events in future?

58 responses



Any other points you want to mention, please feel free to share your opinion

- No
- None
- A better hosting would be appreciated
- I think Mr.kiran gali sir need to speak more about his experience as we will learn something from his ups and downs..
- My opinion is conduct few more sessions
- I think we require this type of programes to have a path, vision ...to get further knowledge



- As a basic session it was fine. But to develop in a competitive world there should be more statistics oriented sessions which can give a view about current revenue and market.
- I want to learn more of my idea and have a idea for accidents
- It's really a good talk. And we thank Kiran sir for attending the event and making it a grand success. We also thank our EDC coordinator for the encouragement given to us. We request you to conduct some more events like this which would help each and every student to have a clear picture of their goals an d ambitions. Sharing or group discussions may help a lot for building self confidence in students. And weekly once if someone could come up with their own innovative ideas that would be really good for the students and even faculty would come to know about the capability of the student. Thank you one and all...
- Nothing

FEEDBACK of Mr. Kiran Gali Sir

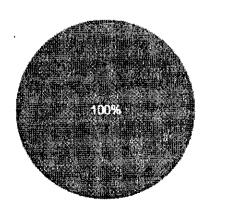
Did you face any problems to reach Sreyas Institute?

i response

No

Did you like our campus?

Lieaponse



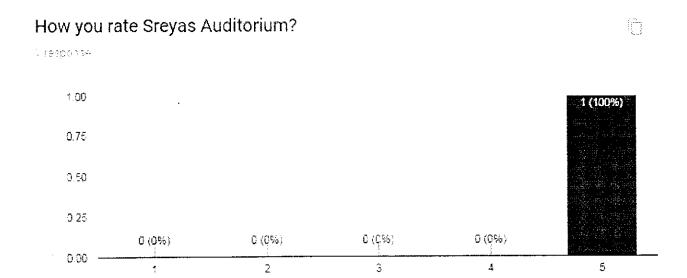




Any Message to management?

Tresponse

Excellent co-ordination and inspirational initiatives on entrepreneurship.



Any Message to our faculties?

Tresponse

Project works on business plans and entrepreneurship idea makes them more involved and focused as part of project works.

Any Message to our students?

Fresponse

Quarterly one project on any new ideas, validations, business plans...Etc will help to get more details.



Thank You Notes:

First of all, on the behalf of SREYAS we would like to thank Mrs. G Vijaya Kumari

Director, J-Hub, JNTUH for providing us resource person to organizes Entrepreneur Talk.

We are really grateful to have Mr. Kiran Gali, Founder and CEO of Number Mall to visit our campus and sharing his experience by providing books to us.

We thank Shri Hriday Sir, vice Chairman and Dr. Suresh Akella, Principal Sir for providing all necessary facilities to organize the Talk

Finally, we thank all HoDs, faculty and students coordinators of EDC and JUB for supporting this event.

Last but not least, we thank to all our dear students for attending the talk and providing feedback. You made us feel happy and proud; we will assure everyone that we will conduct more such events in future

Mr. K. Sainath

EDC Head

Report Prepared by

Mr. Praveen B Ronad

SPoC, J-Hub @SREYAS





Date: 6th October 2019.

SUMMARY REPORT ON UNDER 25 SUMMIT SREYAS INSTITUTE

The Entrepreneurship Development Cell, Sreyas Institute of Engineering and Technology organised UNDER 25 SUMMIT on 5th October 2019. The summit aims to give insights about the significance of passion, arts, music and other unconventional talents in students. It also provides the awareness of emerging of new talents by the millennials in different platforms. The faculty coordinator for the summit is Mr. Sainath Kasuba, Coordinator of EDC Sreyas, Dept. Of Mechanical Engineering, Sreyas Institute of Engineering and Technology.

The Student Representative/Coordinator for the summit (called as SPACE WARRIOR) is B.Dileep Seshu, 17VE1A04J6, Dept. Of Electronics and Communications Engineering, Sreyas Institute of Engineering and Technology.

The speakers for the summit are

- 1. Vineeth Vincent Beatboxer, EMCEE, Host, Presenter, Youtuber.
- 2. Sidharth Bendi Musician, Composer.
- 3. Sharath Chandra Founder of CHAI BISKET, ROWDY WEAR.
- 4. Tharun Bhascker Director, Actor.
- 5. Rakesh Varre Actor, Producer.
- 6.Aavvshkaar Band.

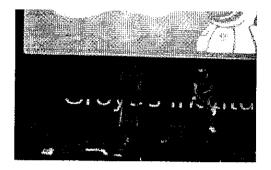
The summit started at 1.30 p.m. on 5th october 2019 by the opening speech and performance by Vineeth vincent followed by the fireside chat with Sidharth bendi. The panel discussion between Sharath chandra of Chai bisket gave valuable insights about the existence of youtube and its opportunities for the new talents. Tharun Bhascker who got national award for his first debut movie as director had an interactive session with students as well as shared his valuable insights on opportunities in Film industry followed by the Keynote address on the struggles in film industry by the Rakesh Varre widely popular by his supporting roles in TFI. The self started fusion band of hyderabad called as AAVYSHKAAR performed live band.

The student organising members for the summit are

- 1. Mysura Reddy Dept. of ECE 17VE1A04M3
- 2. Gaurav Samudrala Dept. of ECE 17VE1A04L0
- 3. Vamsi Krishna Dept. of CSE 17VE1A05A3
- 4. Vaishnavi Dept. of CSE 17VE1A0536
- 5. Rufus Dept. of CSE 18VE1A05N2
- 6. Sohan Dept. of ECE 18VE1A04B3

- 7. Sai vamshi krishna Dept. of CSE 17VE1A0573
- 8. Sai karthik Dept. of MECH 18VE1A0335
- 9. Sushrith Dept. of CSE 17VE1A05A6

















Date: 6th October 2019.

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- 4. Vaishnavi Dept. of CSE 17VE1A0536
- 5. Rufus Dept. of CSE 18VE1A05N2
- 6. Sohan Dept. of ECE 18VE1A04B3
- 7. Sai vamshi krishna Dept. of CSE 17VE1A0573
- 8. Sai karthik Dept. of MECH 18VE1A0335

9. Sushrith - Dept. of CSE - 17VE1A05A6





SREYAS INSTITUTE OF ENGINEERING AND TECHNOLOGY HYDERABAD

Department of Mechanical Engineering

Report

On

Innovative Product Display: Sreyas Mobile Air Condtioner (SMAC)



CII-Edu Summit:Reimagining the Futute of Higher Education _JNTUH Innovation Zone

Organised by



Confederation of Indian Industry

[15TH NOVEMBER 2019] Hotel Park Hyatt, Hyderabad]









Product Display: Sreyas Mobile Air Condtioner (SMAC)

Department of Mechanical Engineering Students of Sreyas Institute of Engineering and Technology with support of Akella Systems Team has displayed Innovative Product named "Sreyas Mobile Air Conditioner (SMAC)" at JNTUH Innovation Zone in "CII- Edu Summit: Reimagining the Future of Higher Education" organized by Confederation of Indian Industry (CII), Government of Telangana and JNTUH on 15th November 2019 at Hotel Park Hyatt, Banjara Hills, Hyderabad

Akella Systems is the one and only SMAC Manufacturing Facility in Hyderabad which has been setup in the institute itself under the **Industry-Institute** Collaboration.

Dr Suresh Akella, Director R&D and Principal is heading the Akella Systems and guiding all students and Staffs in the field of R&AC (Refrigeration and Air Conditioning). The product is being widely recognized and supported by MSME, TEOIP-III, EDC, ISHRAE and INTUH

Department of Mechanical Engineering Staffs and Students are actively involved in designing and developing the product for over the years.

Students go through regular internships and industrial training to get practical learning experience.





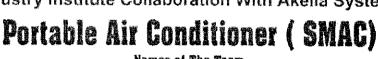
SREYAS INSTITUTE OF ENGINEERING AND TECHNOLOGY



ACCREDITED BY NAAC AND NBA **HYDERABAD**

Industry Institute Collaboration With Akella Systems CII-Edu Summit: 15th Nov-2019

Industry Institute Collaboration With Akella Systems





GST Reg No of Company 36ABNFA581261Z6















Portable Air Conditioner (SMAC)



Names of The Team

Mr.B.Akhil Reddy, Mr. Y.Sai Ram Varma, Mr.G.Veeresh Reddy, Mr. H.Veaugopal and Mr.S.Pothan Komar

Problem: To Provide Confort Unbling at Low-Cos Product: Sneyas Motsie Air Conditioner (SMAC).

Approach

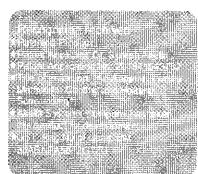
Designed and patented fleat loss paths for the high side and low side of the Ar Conditioning System (SMAC)

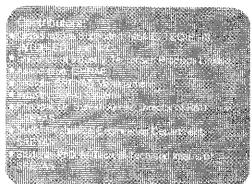
- User Stories

 *Industry is established in the Sreyas Institute

 *Staffs and students developed through FDP's and Internships respectively.
- *Presently run for urban and remote areas
- No Technician required to installation
- Maintenance Free

Technology: A total insulating Material of composite materials were used to build portable mobile air conditioners. Technology of design, producen ent, vendor development, assembly, testing quality aird reliability were designed and established. Seven trait run systems are in the institute for over a year. Initial market started last year.

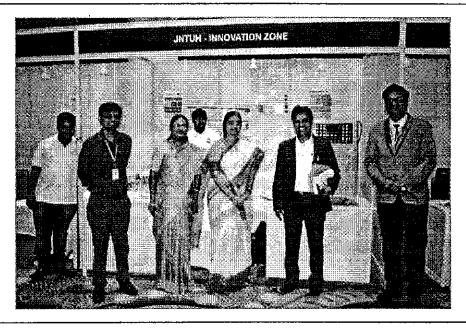








In Pics: Dr. A. Govardhan, Rector, JNTUH with Mr. K Sainath Associate professor of Mech, TEQIP-III, EDC and INSHRAE Coordinator, Mr. Praveen B Ronad, Assistant Professor of Mech and SPOC J-Hub from SREYAS with Students Team of SREYAS and Akella Systems



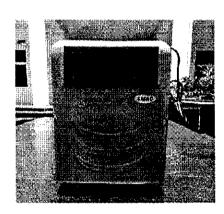
In Pics: Dr. Padmaja Rani, TEQIP-III Coordinator JNTUH, Dr. N Yadaiah Registrar JNTUH with Team SREYAS

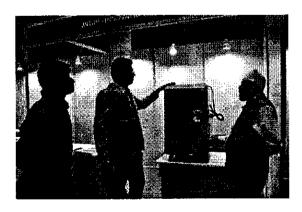
















Team



In Pics: (L-R)

- $1.\ Mr.\ S.\ Pothan\ Kumar,\ IV\ year\ B.Tech\ Mech\ and\ Technical\ and\ Marketing\ Intern$ at Akella Systems
- 2. Mr.N. Venugopal, 4^{th} Year B.Tech Mech and President ISHRAE Sreyas Student Chapter, Intern at Akella Systems
- 3. Mr. B. Akhil Reddy, Production Engineer and Alumni, Akella Systems
- 4. Mr. K Sainath, Associate Professor of Mech, TEQIP-III, EDC and ISHRAE Coordinator
- 5. Mr. Praveen B Ronad, Assistant Professor of Mech and SPoC J-Hub from SREYAS
- 6. Mr. V.Sai Ram Varma, Service Engineer, Akella Systems
- 7. Mr. G. Veeresh Reddy, Technician, Akella Systems

Acknowledgments:

We would like to Thank Sreyas Management for providing financial support to attend Summit. We thank our beloved Principal Dr. Suresh Akella, TEQIP-III JNTUH Coordinator Dr. Padmaja Rani and Dr.G. Vijayakumari, Director of J-Hub, JNTUH for providing all necessary support to exhibit our product at such an extraordinary event.

Finally, We Thank Mechanical Engineering HoD, Staffs, Students, Interns and Akella systems team for their immense contribution towards design and development of the product

Report Prepared By: Mr. Praveen B Ronad, Assistant Professor of Mech and SPoC J-Hub from SREYAS

TEQUIPIII Proposal for Competitive Research Fund

Project Information: As per Montreal Protocol R22 refrigerant which is presently used in India has to be totally banned by 2030. This proposal is to use R134a Refrigerant in Mobile Air conditioners to make a equivalent Mobile Air Conditioners In terms of Power, Cooling Capacity, EER, COP, Noise and Vibrations.

Title: Development of a Mobile Air Conditioner with ECO friendly Refrigerant Applicants to do the R&D:

- Dr. Suresh Akella Professor & Principal, Sreyas Institute of Engineering & Technology, Nagole, Hyderabad, 9849628282, Principal@sreyas.ac.in.
 Principal Investigator, to be in contact.
- Mr. Sainath Kasuba, Associate Professor, Sreyas Institute of Engineering & Technology, Nagole. 9848093630, sainath.k@sreyas.ac.in
- Dr. Ravi Shankar Dasari, Professor & Principal, TKR College of Engineering, Meerpet, Hyderabad. 9666573666, ravishankardasari@rediff.com
- Dr. Satyanarayana. M, Nagole Institute of Technology & Science, Kuntlur, Ranga Reddy. 9640084777, nits.principal@gmail.com,
- Mr. Soudari Bharath chandra, Nagole Institute of Technology & Science, Kuntlur, Ranga Reddy. Mobile: 7013222575, E-mail: nits.mechod@gmail.com

Preamble:

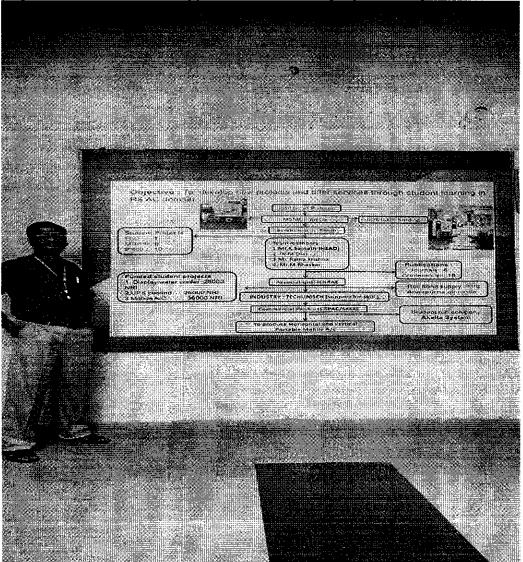
JNTUH has been guidance in improving the standards of Teaching & Learning in the affiliated colleges. Also, JNTUH has offered support for Collaborative research by the affiliated Engineering colleges to do competitive research for which a support fund would be provided by the JNTUH under their TEQUIP program. Research and development activities are considered as an essential component of higher education because of their role in creating new knowledge and insight and imparting excitement and dynamism to the educational process, as well as make them need based in view of the national requirements. The proposal helps to create and update the general research capabilities of the faculty members of the collaborating Technical Institutes.

Sreyas Institute had a manufacturing unit, Akella System established in the institute since 2013. The applicant Dr. Suresh Akella availed an MSME project for "Support for Entrepreneurial and Managerial Development of SMEs through Incubator's for GOI assistance" Reference Number: 6(19) /NMCP/INC./2013-14. Based on this project at Sreyas Institute a Psychrometric Test Lab for Air Conditioner Evaluation was built with in- door and out-door rooms to test room, split and mobile Air Conditioners. Based on this Portable Air Conditioners were built with HCFC -R22 refrigerants and the manufacturing and marketing of the product is happening from the Institute.

^{*}Profiles of the professors is enclosed.

Mr. K Sainath has registered for his PhD in the area of R&AC and has developed the Psychrometric lab as PER BIS standards. The lab was used for the performance evaluation of many new products which were patented, Some ISHRAE sponsored. Some were consultancy

projects with the technical support of in-house company Akella Systems.



This proposal is to build Portable Air Conditioners replacing R22 with more ECO friendly R134a refrigerant. The technical help of Akella Systems will be used to build the designed proto types.

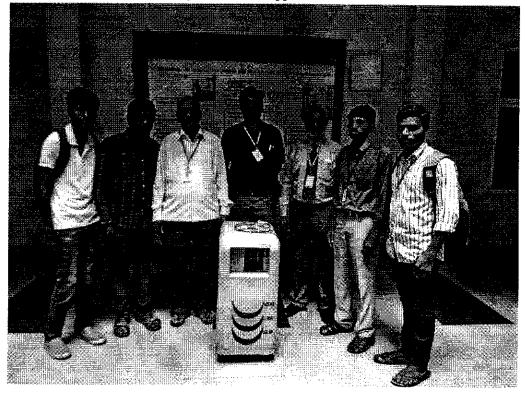
Collaboration with professors from sister affiliated institutes TKR Institute and Nagole institute for design verification, evaluating test results and finalizing specifications for the designed products.

Akella Systems Activities:

Akella Systems is a partnership company operating in Sreyas Institute of Engineering & Technology, Attached it's registration, and affiliation to MSME is attached. where

- UG and PG students do projects
- · Articles to be published in SCI, SCOPUS indexed journal

- Articles to presented in conference
- Build prototypes for new designs in R&AC applications.



Preliminary Work:

Annexure1, gives the SMAC, Sreyas Mobile Air Conditioners of 0.75, 1.0 and 1.25 Ton models manufactured with Patent rights.

Annexure 2 gives the Test results of the present R22 models of 0.75, 1.0 and 1.25 Ton

These, R22 models where built and tested at Partial and full load with R22 models

HCFC, R22 Phase out in India.

Adhering to its global commitment, India on Monday launched the country's latest plan to phase-out one of the key refrigerants - Hydro chlorofluorocarbon (HCFC) - under its ultimate goal to end use of harmful ozone-depleting substances (ODS) by switching over to non-ozone depleting and low global warming potential technologies.

Though the fresh plan is meant for the 2017-23 period, the final goal is to phase out consumption and manufacturing of this ozone-depleting refrigerant under an accelerated plan by 2030. The HCFC is currently used in various sectors including refrigeration, airconditioning and foam manufacturing.

Over 190 countries had in 1987 reached an agreement under Montreal Protocol to phase out the ODS in a time-bound manner. Under the Protocol, India has already successfully phased out the earlier generation of refrigerants, Chlorofluorocarbons (CFCs) and Halon. The country is currently phasing out the HCFC in a gradual manner.

A multilateral fund, set up under the Protocol, has approved USD 44.1 million for India's HCFC management plan for the 2017-23 period. The money will be used to help industries to switch over to alternatives and train manpower. Domestic industries are, however, expected to invest in research & development (R&D) to find out clean alternatives.

"Industries must invest in R&D to carve out a niche for India at a global level. It will also create skills and generate employment", said environment minister Anil Madhav Dave after launching the latest HCFC phase-out management plan.

Addressing stakeholders including refrigerant industries' representatives, Dave recalled how India had acted pro-actively to reach a fair deal in Kigali, Rwanda in 2016 to phase out another refrigerant, hydro fluorocarbon (HFC), which is currently being used as an alternative to ODS like HCFC. He insisted that the government had worked hard to protect interests of domestic industries and it's time for the industries to invest in research to develop cutting-edge technology that can be used in future.

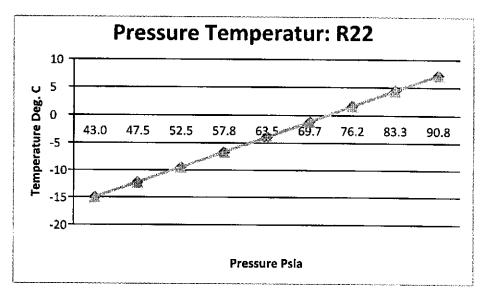
Noting that the implementation of the plan must be forward looking, systematic and efficient, environment secretary Ajay Narayan Jha too insisted for investment in R&D and said key attribute to the country's success in phasing out ODS was involvement of stakeholders, including industries, both at planning as well as implementation stage.

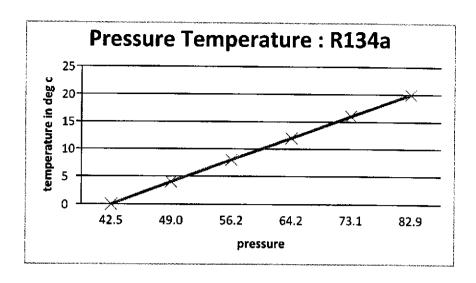
After phasing out HCFC, the country will have to move to a next stage where it will work on to phase out HFC as per an agreement reached by it along with 195 countries in Kigali last year. Though HFC is not ODS, the countries had agreed to gradually phase it out due to its climate-damaging potential. India has, however, a lenient schedule to phase out HFC. It will have to cut use of HFC by 85% by 2047 over the 2024-2026 level.

Proposal to develop Portable Air Conditioners HFC, R134a in place of R22:

1.0 Evaporator Side Comparison:

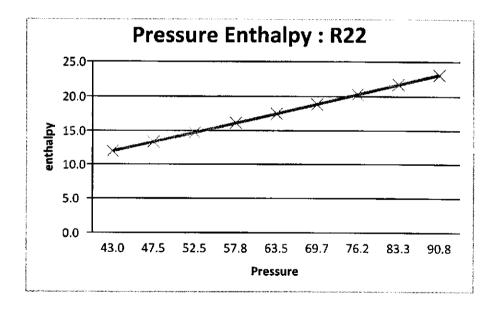
1.1 Pressure Temperature

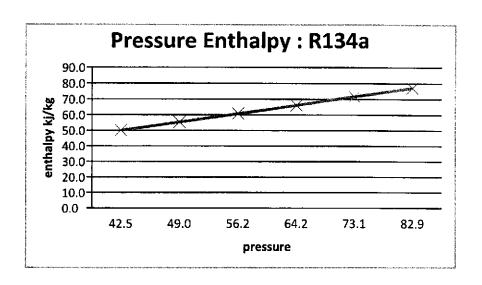




The general Evaporating Temperature is 7.2 Deg C, R22 has a pressure of 90 PSIa whereas attains at a lower pressure of 56PSIa.

1.2 Pressure Enthalpy



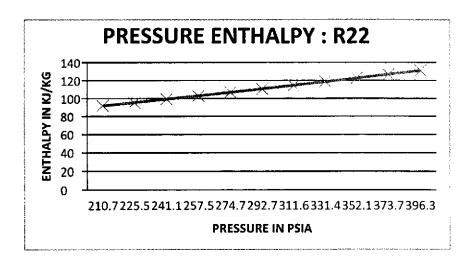


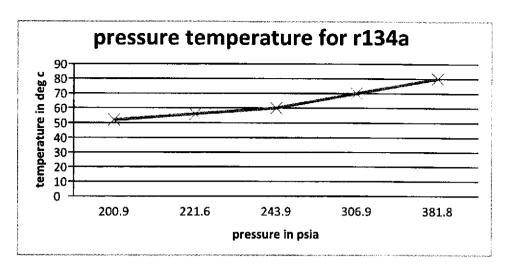
The enthalpy at 90PSIa for R22 is 25Kj/Kg Where as at 56 PSIa for R134a it is about 60Kj/Kg hence double the heat it can carry for same mass flow rate or requires a lower charge with R134a.

Density comparison is to be made to know if mass flow rate changes.

2.0 Evaporator Side Comparison:

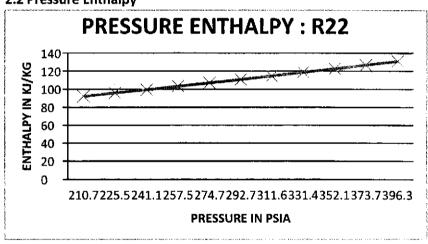
2.1 Pressure Temperature

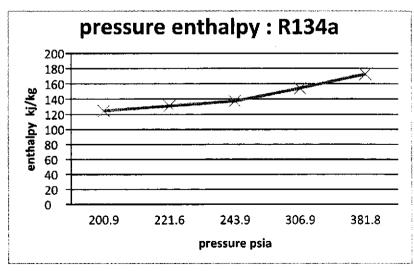




R134a Boils at a lower temperature compared to R22. Generally R134a Condensor pressure is taken about 240 PSIa to obtain about 55 DegC which will suffice a high ambient up to 46 Deg. C. It will operate at a lower discharge gas temperature and is safe for the condensing system.

2.2 Pressure Enthalpy





Again, The heat carrying capacity of R134a is at 240PSIa is about 150KJ/KG compared to about 110 KJ/KG for R22. It is about 1.4 times and not as much as for Evaporator side. Hence it is required to compensate in the sizing of the heat exchangers with balancing pressures and gas charge which is a challenge.

Also density variation need to be studied to know net effect of mass flow rate times enthalpy.

Technical Field of proposal

- Develop the Refrigeration parts of Condenser, Evaporator, Capillary and compressor for a balanced system.
- Use of REFPROP software for getting Refrigerant R134a Properties
- Use of Cool pack software for performance evaluation with R134a gas
- Use Catia, AutoCAD for drawings of parts.
- Provide the required air low for forced air systems on the hot and cold sides.
- Provide the closed air flow systems over evaporator and condenser to minimise the leakages in heat.
- Provide an electronic control for friendly operation.

Project Significance / Relevance with ongoing academic activities

- The program consists of compressor psychrometric testing, system drop-in testing, soft-optimized system testing, and heat transfer testing.
- Along with these specific objectives following evaluation criteria were also assessed; system
 performance at off design conditions, system refrigerant charge characteristics and
 assessment of indoor coil performance.
- Study the thermodynamic cycle characteristics of Hydro fluorocarbons substitution with lower Global warming potential synthetic alternative Refrigerant.
- The purpose of the work is to evaluate the energy performance and capacity of Hydro fluorocarbons substitution with lower Global warming potential synthetic alternative Refrigerant.

The proposed model will also look into the possible energy ratings though there are no BIS standards for Portable Air conditioners. Below is a proposed area of Work that will be looked into this project.

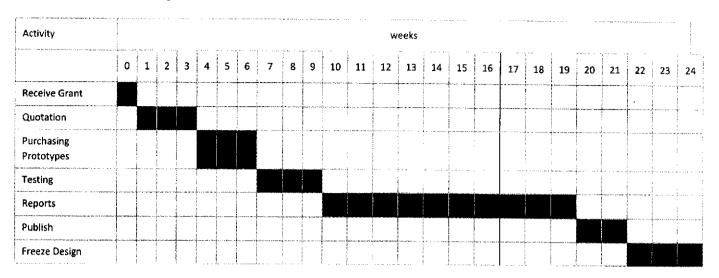
Project Significance:

- This study focused on refrigerants with low global warming potential and low levels of toxicity.
- The optimum refrigerant charge for reduces the cost and relieves the flammability or toxicity of some refrigerants

Project Impact - Expected outcome

- Develop R134a Portable ACs for 0.75, 1.0, 1.25 Ton capacity
- Provide information for optimal selection of refrigerant replacements for R22
- Develop for the existing SMAC models, Annexure 1 of the Akella Systems which are running with R22 refrigerants
- Provide guidance to the HVAC&R community on selecting alternative, energy-efficient, low GWP refrigerants
- Provide guidance for use of lubricants and possible future work with use of Nano Fluids
- Provide possible scope to develop Solar ACS in the future.
- The model developed will be provided to Akella System for production
- Any Patents that evolve will be given to the Akella System for its production.

Time & activity chart



The program will be completed within 6 months of the availability of the funds.

Literature survey on International scenario

The first generation of refrigerants included substances such as hydrocarbons, ammonia, and carbon dioxide. The second generation of refrigerants included chlorofluorocarbons (CFCs) and hydrochloro fluorocarbons (HCFCs), which became widely used because they were efficient, non-flammable, and non-toxic. In the 1980s, CFCs and HCFCs were determined to play a major role in depleting the stratospheric ozone layer. Beginning in the 1990s, the industry phased out CFCs and HCFCs in favor of a third generation of refrigerants: hydro fluorocarbons (HFCs). HFCs have zero ozone depletion potential; however, when released to the atmosphere, they have significant global warming potential (GWP) (Bellman-Flores et al., 2015). The growing international emphasis on global warming mitigation has stimulated interest in a fourth generation of low-GWP refrigerants.

Natural fluids have always been considered in refrigeration and air conditioning systems (Riffat et al., 1997). However, because of different reasons (safety, the cost of equipment, etc.), synthetic fluids had imposed in many of these applications. Now, GWP restrictions have brought another opportunity to the natural refrigerants (Bolaji and Huan, 2013). Several authors have reviewed the particularities of the most relevant natural refrigerants used in vapor compression systems in the last few years. For instance, Bansal (2012) focused on CO2 low evaporation temperature operation and Ma et al. (2013) in the CO2 transcritical cycle operation.

Apart from the possibility of using available natural refrigerants, researchers and manufacturers should consider low Some recently developed low GWP refrigerants and their mixtures have been investigated in a number of works. However, the knowledge about the consequences of the utilization of pure and mixed HFOs in vapor compression systems is still at an earlier stage. Devecioğlu and Oruç (2017) highlight that HFO (hydro fluoroolefin)/HFC mixtures present good characteristics to replace high GWP working fluids but they still require additional investigations to be widely used in the market. Moreover, Sarbu (2014) states

that along with the reduced atmospheric warming potential of new refrigerants they should be also as energetically efficient as possible. Mota-Babiloni et al. (2015) reviewed the applicability of some developmental working fluids to substitute currently used ones in various refrigeration systems. In the last few years, a substantial number of refrigerants have been commercialized and the search for the most appropriate solution in the different refrigeration and air conditioning sectors is a matter of great importance

Literature survey on National scenario

HCFCs and HFCs account for 90 percent of the total sales in the refrigeration and air-conditioning sector in India, with about 10 percent accounted for by natural refrigerants. In 2015, 44.26 per cent of RAC sales was based on HCFCs and 47.29 per cent was based on HFCs. The use of HCFCs has gone down in most sectors in the recent past. Most of HCFC is used in residential air conditioning (60 percent) and commercial refrigeration (25 percent). The reduction in HCFC use has been accompanied by an increase in the use of HFCs. The highest HFC use is in the MAC sector (40 percent), followed by domestic (19 percent) and commercial (18 percent) refrigeration Chandra Bhushan (2015).

Use of natural refrigerants offers energy efficiency in almost all applications under the RAC sector. The use of natural refrigerants will allow us to set more ambitious energy efficiency targets for ensuring energy security and reducing greenhouse gas emissions. A study by CSE estimates that a doubling of energy efficiency in the domestic air-conditioning sector alone will lead to reduction of 100 million tons of CO2 equivalent annually in India by 2030 (website ref.)

Facilities / equipment available in the area of research proposed

Facilities of Akella Systems will be utilised who have successfully completed many research projects, ISHRAE sponsored projects, have MSME supported BIS standard Psychrometric Laboratory.

The cost of developing design and development per piece will be about Rupees Thirty thousand. Rs30000. A total of 10 models will be made at an approximate cost of Rs 300000, Three Lakhs.

Cost of documentation, reporting will be borne by the PI, Dr. Suresh Akella. Also, for publication to conferences and journals.

Travelling or any incidental expenses will be borne by respective research in charges.

Any patent filing will be borne by Akella Systems.

Financial breakup of proto Types and testing:

S.N	Detail	Qt	Description	Item	Supplier	cost
0	compressor	<u>y</u> 1	Model:PH210M2C-4FT2 Type: Rotary Application: HBP/AC - Air Conditioning Refrigerant: R22, 1 ton Voltage/Frequency:	BUY	Toshiba GMCC	4500
	Hardware :		220-240V ~ 50HZ			
	Hardware	3	compresor fitting screws and nuts	no of fins:14/inch MAKE Amar		300
2	condenser	1	no of fins:14/inch 14/14 inch ,3 rows condensor	MAKE	Amarjeet cooling systems	2000
3	evaporator	1	no of fins:12/inch. 12x12,,1 row evaporator	MAKE	Amarjeet cooling systems	2100
4	Motor for condensor	1	RPM:2700 DIRECTION : Clock type 220V- 240V 50hz	BUY	dolphin electricals	350
5	Motor for evaporator	1	RPM:1350 DIRECTION : Clock type type:3 speed voltage 220-240v 50HZ	BUY	dolphin electricals	600
6	controller	1	printed circuit board model name:BSC Timer temperature indicator swing	BUY		550
7	blower for condensor cooling	1	Material Type: plastic,double inlet no of blades: 29 3 inch hight,6 inch diameter	BUY	dolphin electricals	80
8	Blower for evaporator	1	Material Type: plastic,double side no of blades: 29 4 inch hight,8 inch diameter	BUY	r	
9	evaporator blower housing		material : fiber glass		pavann fabrications	
	condensor back attachmet	1	material : fiber glass		pavann fabrications	
	condensor fan attachment	1	material : fiber glass		pavann fabrications	
	evaporator attachment	1	material : fiber glass		pavann fabrications	4000
	condensor attachment	1	material : fiber glass		pavann fabrications	mac y acas
	front plate	1	material : fiber glass		pavann fabrications pavann	
	3 side body cover	1	material : fiber glass		fabrications pavann	
10	frame	1	material : mild steel		fabrications	
11	Hose pipe	1	6inch dia ,7feet long	BUY	amazon	580
12	Ac (drier)(before capillary)	1	material : copper	BUY		250
13	T-joint	2	material : copper	BUY		300
14	Wheels	4	Load carrying capacity up to 80 Kgs which is best in class., Manufactured in high grade Plastic., Easy lo lock & operate.	BUY		330
15	electrical wires	1	red-1 meter	BUY		70
		1	yellow -I meter	BUY		100
		1	black-1meter	BUY		70
16	main plug	1	12amps	BUY		800
17	self tapping screws	30	20 self tapping screws,10 nut and bolt 1/2 inch	BUY		150
18	copper tube 1/4	1	1/2 feet			200

19	copper tube 1/2	1	3feet	600
20	copper tube 3/8	1	1.5feet	300
21	capillary	1	3.5feet	500
22	oxygen		100grams	100
23	acetylene		100grams	300
24	R134a		550 grams	520
25	brazing rods		150 grams(3rods)	10
26	Assembly and labor			5000
27	Testing			5000
	TOTAL			29740

Details of Principal Investigator

Name	Dr. Suresh Akella		
Exact designation	Professor and Principal	Date of joining	01/07/2011
Appointment Type	Regualar		A A A A A A A A A A A A A A A A A A A
Department	Mechanical Engineering		The second secon
Qualifications	B.E(Mechanical), OU	M. Tech. IIT	PhD, U of Alberta, Canada
Experience in years	Teaching:9	□ Industry: 23	Research:23
Relevant experience	Attached Separately		
Other information	Attached Separately		Chamber and the Copyrish and Co
Cell number	Mobile: 9849628282		manufacture of the state of the
Email	Email : principal@sreya	s.ac.in	AND THE STREET CONTRACTOR OF THE STREET CONTRA

- Abide by all the rules / regulations regarding utilization of amount that may be granted to the Institute.
- ☑ Submit timely progress reports about grant utilization.
- Submit utilization certificate duly authenticated by CA on/before project period is over.
- ☑ Return full/partial unutilized grant amount to the Council.

Project forwarded

Signature of Head of the Institution

Institute Seal

Date: 4-3-2019

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- Sarbu, I., 2014. A review on substitution strategy of non-ecological refrigerants from vapour compression-based refrigeration, air-conditioning and heat pump systems. Int. J. Refrigeration 46, 123–141.
- 8. Mota-Babiloni, A., Navarro-Esbrí, J., Barragán-Cervera, A., Molés, F., Peris, B., 2015a. Analysis based on EU Regulation No 517/2014 of new HFC/HFO mixtures as alternatives of high GWP refrigerants in refrigeration and HVAC systems. Int. J. Refrigeration 52, 21–31.

Sreyas strengths in R&AC R&D Project – Design / Prototypes/Testing / Patenting/ Commercialization 2016-17

S. No	Name of the Project	Status	Remarks		
1.	Horizontal Mobile AC	Field Testing- Model	Marketed by Akella systems pvt Ltd		
2.	Vertical Mobile AC	Design completed	Marketed by Akella systems pvt Ltd		
3.	Spot Mobile AC	Field Testing- Model	Marketed by ISHRAE		
4.	Display water cooler	Under Field testing	ISHRAE sponsored project		
5.	Ups & Static cooling system	Under Field testing	ISHRAE sponsored project		

R&D Project – Design / Prototypes/Testing / Patenting / Commercialization 2015-16

Name of the Project	Status	Remarks		
Display water cooler	Under Field testing	ISHRAE sponsored project		
Ups & Static cooling system	Under Field testing	ISHRAE sponsored project		
Psychrometric room	Calibrated	Test Room is ready for use.		
BRFST-Welding simulation	Designed Welding simulation	Got extension		
Coiled Tube Mobile AC	Specimen-I	Completed		
Evaporator Mobile AC	Specimen-II	Completed		
	Display water cooler Ups & Static cooling system Psychrometric room BRFST-Welding simulation Coiled Tube Mobile AC	Display water cooler Ups & Static cooling system Ups & Static cooling system Under Field testing Under Field testing Calibrated BRFST-Welding simulation Coiled Tube Mobile AC Specimen-I		

R&D Project - Design / Prototypes/Testing / Patenting / Commercialization

2014-15

S. No	Name of the Project	Status	Remarks
1.	Display water cooler	Designed	ISHRAE funded
2.	Ups & Static cooling system	Designed	ISHRAE funded
3.	Psychrometric room	Applied for II installment	Test Room is completed
4.	HCL Technologies Ltd	Rs 1.25 Lakhs received	Consultancy project completed
5.	BRFST-Welding simulation	Welding simulation	Published papers
		With ABAQUS	

R&D Project - Design / Prototypes/Testing / Patenting / Commercialization 2013-14

S. No	Name of the Project	Status	Remarks
1.	BRFST-Welding simulation	Designed Welding simulation	Ist Phase of the fund received, Purchased soft wares like Ansys, ABAQUS,
2.	MSME-JNTUH-Sponsored project	Intiated-JAN-2014	Released seed money to start Civil work
3.	Tecumseh-study projects	Associated to do Mini project	Completed

Schedule of Deliverables

Sl. No.	Particulars	Remarks	Amount (Rs.)	Months
1.	Montreal Protocol, Alternate refrigerants evaluation of R22	Use Refprop Software, NIST	Sreyas Inst.	1.0
2	Performance evaluation calculations and comparisons	Use Cool pack Software, NIST	Sreyas Inst.	1.0
3	Build & Test R22 basic Models of 0.75, 1.0 & 1.25 Ton for Reference	Akella Systems	2,00,000	2.0
4	Prototypes of 134a 3 Models each of 0.75, 1.0, 1.25 Ton	Akella Systems	1,00,000	1.0
5.	Reports, Publications, Production design	Team	Self Finance	1.0
Total			3.0 Lacs	6.0 Months

The products will also be given to Co PI institutes and JNTUH for field test evaluation.

Applicants Information (Enclosed)

Akella System (Enclosed)

Date and Place:

Signature of the Head of organization with seal



Annexure 2

Title: GMCC 0.75 TON PART LOADING

Probe no	Description	15 min	30 min	45 min	60 min
1	RETURN GAS	27.2	26.3	26.2	26.3
2.	DISCHARGE GAS	96.8	103.5	107.8	108
3.	LIQUID LINE	61.1	61.0	61.4	62.2
4.	SHELL TOP	96.1	104.4	109.2	109.5
5	SHELL MDDLE	97.6	105.8	106.2	105.4
6.	EVP IN	14.2	14.2	14.6	14.8
7.	EVP OUT	26.6	24.3	24.6	24.2
8.	EVP MIDDLE	15.8	15.9	16.1	16.0
9.	CONDENSER MIDDLE	63.2	63.1	63.8	63.6
10.	AIR IN	35.2	30.0	29.7	29.8
11.	AIR OUT	27.1	25.0	25.8	25.5
12.	CONDENSER OUT	61.7	61.8	62.6	62.4

Dry bulb temperature: 28°C, Wet bulb temperature: 25°C ; Ambient temperature: 33 °C

Title: GMCC 0.75 TONN FULL LOAD:

Probe	Description	15	30	45min	60min	25	Suction	Discharge	Ambient
no.		min	min			min	Juction	Discharge	Ambient
1.	RETURN GAS	37.8	37.8	38.2	36.8	35.6	37.0	37.0	33.7
2.	DISCHARGE GAS	119.7	124.8	124.0	125.0	124.0	125.8	125.4	126.7
3.	LIQUID LINE	69.1	69.6	70.3	69.8	67.9	69.3	69.3	67.9
4.	SHELL TOP	120.4	125.7	125.7	126.0	125.3	126.9	127.9	127.6
5.	SHELL MIDDLE	115.3	120	120.9	120.5	119.2	120.6	120.1	120.1
6.	EVP IN	205.	20.5	20.5	20.6	20.4	20.6	20.6	20.1
7.	EVP OUT	36.2	35.4	37.5	34.1	32.9	35.3	35.4	32.2
8.	EVP MIDDLE	22.5	22.4	23.1	22.8	21.8	22.1	22.6	21.3
9	CONDENSER MIDDLE	71.1	71.6	72.0	71.3	70.4	71.5	72.2	71.0
10.	AIR IN	40.7	41.0	41.8	38.7	38.2	40.7	40.0	39.0
11.	AIR OUT	34.6	34.6	35.1	33.4	32.4	34.4	35.0	33.0
12	CONDENSER OUT	70.9	71.7	72.0	71.3	70.4	71.6	72.63	71.2

Dry bulb temperature: 37°C, Wet bulb temperature: °C, 31 Ambient temperature: 31oC

Title: GMCC 1.0 TON PART LOADING

Probe no.	Description	15 MIN	30MIN	45 MIN	60 MIN	25 MIN	SUCTION
1.	RETURN GAS	25.2	26.2	26.2	24.9	23.6	26.3
2.	DISCHARGE GAS	98.2	106.5	106.8	106.8	108.5	106.9
3.	LIQUID LINE	52.0	52.9	53.5	52.4	52.1	53.1
4.	SHELL TOP	94.5	103.2	102.7	103	104.5	103.1
5.	SHELL MIDDLE	99.3	107.1	107.3	107.4	109.3	107.3
6.	EVP IN	10.6	10.5	9.7	9.1	9.4	10.1
7.	EVP OUT	24.4	24.8	25.4	23.8	22.1	25.2
8.	EVP MIDDLE	16.3	15.2	16.8	13.6	8.2	16.7
9.	CONDENSER MIDDLE	52.1	53.4	54.4	53.1	52.5	53.8
10.	AIR IN	27.3	27.6	29.0	27.4	25.4	27.3
11.	AIR OUT	21.6	21.6	22.6	21.2	19.4	22.2
12	CONDENSER OUT	51.0	52.7	54.1	53	52.4	53.9

Dry bulb temperature: 25oC, Wet bulb temperature: 20oC, Ambient temperature: 32oC

Title: GMCC 1.0 TON FULL LOAD

Dry bulb Temperature: 26oC, Wet bulb temperature: 24oC, Ambient temperature: 35oC

1.	RETURN Title::1.25 TON GAS	PARTIAL	- 3 58	18.3	18.0	18.5	17.7	17.9	17.0
2.	DISCHARGE GAS	93.8	101	108.4	107	109.4	108.2	107.3	104.8
3.	LIQUID LINE	72.1	69.2	70.6	70.4	70.9	70.2	69.8	68.8
4.	SHELL TOP	90.3	99.8	107.0	105.8	107.2	106.1	105.3	102.9
5.	SHELL MIDDLE	91.9	103.4	119.8	110.3	113.1	111.8	111.5	108.2
6.	EVP IN	21.8	20.0	21.8	21.4	21.8	21.3	20.9	19.7
7.	EVP OUT	19.1	16.5	18.2	17.7	18.2	17.5	17.3	16.4
8.	EVP MIDDLE	22.0	19.5	21.0	20.5	20.1	20.2	20.0	19.3
9.	CONDENSER MIDDLE	73.1	70.4	72.1	71.4	72.1	71.2	70.9	70.0
10.	AIR IN	38.9	34.5	34.9	34.3	34.6	33.8	33.3	33.3
11.	AIR OUT	26.1	24.0	25.4	24.7	25.7	25.8	24.5	23.9
12	CONDENSER OUT	70.4	69.4	71.7	71.7	72.2	71.2	70.6	69.9

Dry bulb Temperature: 26oC, Wet bulb temperature: 24oC, Ambient temperature: 35oC

Probe no.	Description	15 MIN	30MIN	45 MIN	60 MIN	25 MIN	SUCTION	DISCHARGE
1.	RETURN GAS	27.8	28.8	29.5	29.6	29.6	29.6	29.3
2.	DISCHARGE GAS	98.9	111.1	112.6	112.4	112.9	113.3	112.7
3.	LIQUID LINE	55.6	57.3	58.0	58.5	58.3	58.8	57.9
4.	SHELL TOP	93.0	107.0	108	107.5	108.1	109.2	108.2
5.	SHELL MIDDLE	99.0	111.5	112.8	113.2	113.0	113.6	112.9
6.	EVP IN	13.6	14.8	14.8	14.8	14.9	15.1	14.0
7.	EVP OUT	28.1	28.2	28.6	28.4	28.8	28.8	27.9
8.	EVP MIDDLE	17.5	16.9	18.2	17.9	19.0	18.5	16.4
9.	CONDENSER MIDDLE	57.3	58.9	59.0	59.1	59.1	59.7	58.6
10.	AIR IN	32.2	32.4	32.0	32.5	32.3	32.6	32.0
11.	AIR OUT	24.2	25.3	25.5	25.5	25.7	26.0	24.5
12	CONDENSER OUT	56.5	59.5	60.0	59.5	60.2	60.5	59.5











SREYAS NATIONAL LEVEL WORKSHOP ON

FINITE ELEMENT ANAYSIS USING MATLAB On 5th to 6th October 2018

SREYAS INSTITUTE OF ENGINEERING AND TECHNOLOGY

PROGRAMME SCHEDULE

DEPARTMENT OF MECHANICAL ENGINEERING

	Institute of the state of the s	entropy that the design and the second of th
	(09:30 AM to 10:30 AM)	
10:00 AM	About Sreyas and Conference	Host
10:03 AM	Inviting the Dignitaries on to the Dias	Host
10:10 AM	Lighting of the lamp	By Management and Dignitaries
10:05 AM	Welcome Address by HOD	Prof. Y.krishna
10:10 AM	Presidential Address by Vice Chairman, SIET	Sri. A. Hríday Reddy Garu
10:15 AM	Presidential Address by Secretary, SIET	Sri. Chintala Ravidranath Garu
10:20 AM	Address by Principal	Dr. Suresh Akella
10: 25 AM	Vote of Thanks	Dr.PM Diaz
	Tea (10:30 AM to 10:50 AM)	* orange designation of the contract of the co
	Practical Sessions in Mat Lab (Lab 3) (10:50 AM to 12:30 PM)	ib 3)
American American Committee regions	The same and the s	DIGE TO BE A DE LA COMPANIA DEL COMPANIA DEL COMPANIA DE LA COMPAN















SREYAS NATIONAL LEVEI, WORKSHOP

FINITE ELEMENT ANAYSIS USING MATLAB On 5th to 6th October 2018

WORKSHOP

5th Friday the October 2018

- 1. Introduction & scope of the program, Dr. Suresh Akella 11.00 to 11.10
 - 2. Introduction to MATLAB, Dr. John Moses 11.10 -11.30
- 3. Matrix Operations in Mat Lab, Dr. John Moses 11.30 -12.30
- 4. Area of a rectangle, Concept Introduction to FEA, Dr. P.M Diaz 12.30 -12.45
- 5. Force, by FE concept Dr. P.M. Diaz 12.45- 1.00PM
- Lunch 1.00 -2.00
- 6. Stress Strain relationship --Dr. Uma Maheshwar Rao2.00- 2.30
- 7. Plane Stress, Plane Strain problems, Dr. Uma Maheshwar Rao 2.30 -3.00
- 8. Discrete systems Analysis, Dr. Suresh Akella. 3.00-4.00

6th Saturday the October 2018

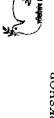
- 1. Graphs with Matlab, Mrs. Spandana 10.00 -11.30
- 2. 1D rod, structural problem, Mr. Siri Ram Ganaraja, 11.30-1.00 Pm Lunch 1.00 -2.00
- 5. Numerical Integration, Mr. Siri Ram Ganaraja, 2.00-3.00
- 3. 1D Heat Transfer Problem, Mr. Siri Ram Ganaraja Assigni
- 4. 1D Eigen value problem, Mr. Siri Ram Ganaraja, Assign 2

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(c) Valedictory function details









FINITE ELEMENT ANAYSIS USING MATLAB On 5th to 6th October 2018

:	Valedictory Ceremony (3:15PM to 4:00PM)	tony (1)
3:15PM	About Sreyas and workshop	Host Raghava
3:17PM	Inviting the Dignitaries on to the Dias	Host Raghava
3:20PM	Presidential Address by Vice Chairman, SILT	Sri. A. Hriday Reddy Garu
3:25PM	Presidential Address by Secretary, SIET	Sri, Chintala Ravidranath Garu
3:30PM	Address by Principal	Dr. Suresh Akella
3:35PM	Profile of Chief Guest	Raghava
3:40PM	Chicf Guest's Address	Prof. Puli Ravi Kumar Garu, Member Secretary of TSCOST (Telangana State Counsel of Science and Technology) and Professor, Mechanical Engineering Department, NIT Warangal.
3:55PM	Prize Distribution to Toppers of workshop	Prof. Puli Ravi Kumar Garu, Member Secretary of TSCOST
4:(X)PM	Honour to Chief Guest	Shri Hriday Garu, Vice Chairman, SIET
4:02PM	Vote of Thanks by HOD	Y.Krishna

(d) Target groups

No. of External Participants: 19

No. of Internal Teaching staff participants: 9

Tea & Snacks follows

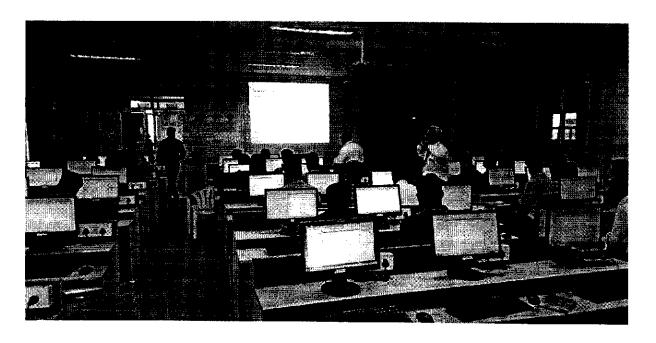
No. of Internal Students Participants: 76

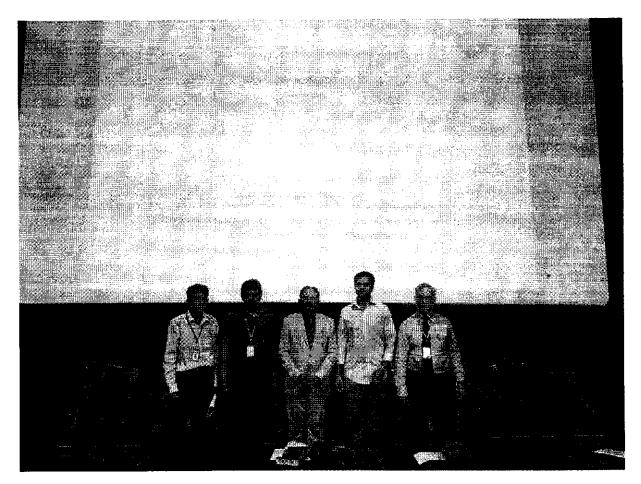
(e) No. of participants

104

(f) Photos

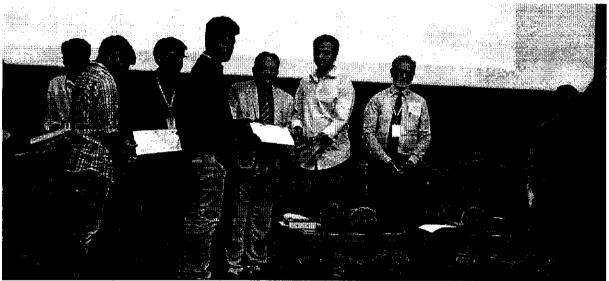












(g) Press clippings, if any

(h) TSCOST sanction order copy



TELANGANA STATE COUNCIL OF SCIENCE & TECHNOLOGY

Environment, Forests, Science & Technology Department, Government of Telangena

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12^OFloor Eastern Wing, Gagan Vihar, M.J. Roac, Nampally, Byderabad, 500931, Ph. 040-24619675, Fax - 940-24606990 e-mad, sery itses/atelangana.gov.ar

Prof Ravi Kumar Poli, M.Tech, PhD,EEM (UK) Member Secretary

Lr.No.TSCOST/NMD-2018/2018-1,Dt.27-09 / 2018.

Sub:- TSCOST - Celebration of National Mathematics Day-2017 a

in the State of Telangana - Sanction orders issued - Reg.

Ref:- Your proposal No. Nil Dt.26.09.2018

With reference to your proposal cited above. I am to accord sanction of Rs.25,000/Rupees Twenty five Thousand only) for organizing "Two day National level workshop on FEA using MATLAB" during 05 - 06th October 2018 towards partial financial support from TSCOST under the "National Mathematics Day 2017".

I am also to inform that the sanction is subject to the following terms and conditions.

- That in the material / report brought out on the program please mention in bold letter "Catalyzed and supported by the National Council for Science & Technology Communication, DST, New Delhi and Coordinated by TSCOST, Hyderabad".
- 11. That the sanctioned amount shall be released in 2 (two) installments of 50% as advance in 1st installment and the remaining 50% as full and final payment in 2st installment shall be released only on receipt of a copy of the Report along with Utilization Certificate & Statement of Expenditure. Press Clippings, Photographs, Resolutions of the program with all the relevant material alongwith List of the Speakers with their complete address and Phone Nos. & List of the Participants etc..

I am also to request you to furnish the UC and SOE along with Report in the formats enclosed for taking further action in the matter.

MEMBER SECRETARY

To
The Principal
Sreyus Institute of Engineering
2-50/5, Sy.No. 107.
Tattiannaram (v)
GSI, Bandlaguda
HYDERABAD

Utilization Certificate (UC)

This is to certify that TSCOST sanctioned an amount of Rs. 12,500 towards the Program/ Project / Travel (Mention Title of research paper & Conference name in case of Travel Grant) NATIONAL LEVEL WORKSHOP ON FINITE ELEMENT ANAYSIS USING MATLAB which was organised / conducted by Department of Mechanical Engineering SREYAS institute of engineering and technology Beside Indu Aranya, GSI, Bandlaguda, Nagole, Hyderabad, Telangana 500068 (mention the name of the department and organisation) during 05-10-2018 & 06-10-2018 and that the Organising Institution/ Grantee utilized an amount of Rs. 32,500 for the purpose for which it was meant.

(Please strike off any one paragraph, whichever is not applicable, out of the below mentioned two paragraphs. Give the details for the applicable items)

Further, This is to certify that TSCOST released an amount of Rs. 12.500 TSCOST PLAN, MEMBER dt. 05-10-2018 out of the sanctioned grant and based on the sanction and utilization as mentioned above, a sum of Rs. 12.500 is yet to be received by the Institution/ Grantee from TSCOST.

Signature of Principal Investigator

/ Organising Secretary / Grantee

SEE SAN IN SEAL OF THE PROPERTY OF THE PROPERT

Asural -Signature of Registrar/ Head of the Institution with seal

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Statement of Receipts & Payments (SRP)

1. Title of the program/project

: NATIONAL LEVEL WORKSHOP ON FINITE ELEMENT ANAYSIS USING

MATLAB

2. Name of the Principal Investigator/ Organising Secretary/ Grantee/ Program Coordinator

: Dr.P.M DIAZ

3. Name of the Institution with address

: Department of Mechanical Engineering SREYAS institute of engineering and

technology

Beside Indu Aranya, GSI, Bandlaguda, Nagole, Hyderabad, Telangana 500068

(Mention the name of the implementing department and organisation)

4. Duration of the Program/Project/Travel

a) Date of Commencement

: 05-10-2018

b) Date of Completion

: 06-10-2018

5. TSCOST Sanction Lr. No. & Date : TSCOST/NMD-2018/2018-1Dt.27/09/2018

S.No.	Amount Sanctioned by TSCOST (Rs.)	Amount released by TSCOST (Rs.)	DD/ Cheque/ NEFT/ RTGS No. & Date	Expenditure Incurred (Rs.) (Indicate the total expenditure incurred on the program)
TSCOST/NMD- 2018/2018- 1Dt.27/09/2018	Rs. 12,500	Rs 12,500	TSCOST PLAN, MEMBER	32,500

Funds received from self/ other funding Agencies/ Departments for this program (if any) 6.

S.No.		Amount
:		Sauctioned
	in the conference of the state	(Rs.).
1	Self	7,500

7. Amount yet to be received from TSCOST on completion of the Program / Project / Travel as per sanction order

: Rs. 12,500

8. Unspent balance refunded to TSCOST, if any

. Rs. Nil

(please give details of cheque/ DD number, date, amount)

Organising Secretary

Signature of Principal Investigator Signature of Accounts Signature of Registrar/ Head of the Institution

Grantee/ Program Coordinator with seal T 70 Serup on bearing with seal

3) Guests of the programme - inaugural / Valedictory

SLN	Mama f	Institution	Pa I
DIVIA	Name &	Institution	Please mention

0.	Designation		(for inaugural or for valedictory)
1	Prof. Puli Ravi Kumar Garu,	Member Secretary of TSCOST (Telangana State Counsel of Science and Technology) and Professor, Mechanical Engineering Department, NIT Warangal	Valedictory

4) List of faculty members / Teachers/ Employees who have extended support for the programme.

SI.N o.	Name	College / Institution	Mobile Number
1	Dr. Suresh Akella	Department of Mechanical Engineering	+91-9849628282
		SREYAS institute of engineering and technology	
		Beside Indu Aranya, GSI, Bandlaguda, Nagole, Hyderabad, Telangana 500068	

2	Dr. John Moses	Department of Electronics and Communication Engineering	+91-7339104796
		SREYAS institute of engineering and technology	
		Beside Indu Aranya, GSI, Bandlaguda, Nagole, Hyderabad, Telangana 500068	
3	Dr. P.M. Diaz	Department of Mechanical Engineering	+91-9443558554
		SREYAS institute of engineering and technology	
		Beside Indu Aranya, GSI, Bandlaguda, Nagole, Hyderabad, Telangana 500068	
4	Dr. Uma Maheshwar Rao	Department of Mechanical Engineering	+91-7981002139
		SREYAS institute of engineering and technology	
		Beside Indu Aranya, GSI, Bandlaguda, Nagole,	

		Hyderabad, Telangana 500068	
5	Mrs. Spandana	Department of Electronics and Communication Engineering	
		SREYAS institute of engineering and technology	
		Beside Indu Aranya, GSI, Bandlaguda, Nagole, Hyderabad, Telangana 500068	

5) List of Resource persons attended for Sessions/ Activities

SI.N o.	Name	Subject Specialisat ion	Designation & Institution	Mobile Number / E- mail ID
1	Mr. Siri Ram Ganaraja	FINITE ELEMENT ANAYSIS USING MATLAB	Engineer Analyst Infosys	+918660246582 Sriram.graju@gmail .com

6) List of Participants of the programme :

List of External Participants

Externa	External Participants (Faculty & Students)				
S. No.	Participant name	Desgination	College/ Institution		
ĺ	Dr. M Koti Reddy	Professor	CBIT, Hyderabad		
2	N Ranga Reddy	Assoc, Prof.	CBIT, Hyderabad		
3	Karthiga Shenbagam	Asst, Prof.	BIT, Coimbatore		
4	T Balaji Gupta	Assoc. Prof.	MLRITM, Hyderabad		
5	P Lava Kumar	Assoc, Prof.	CVR College of Engineering, Hyd.		
6	G Mrudula	Assoc. Prof.	CVR College of Engineering, Hyd.		
7	Rambabu Dara	Asst. Prof.	CVR College of Engineering, Hyd.		
8	T Venkatesh	Asst. Prof.	CVR College of Engineering, Hyd.		
9	Bhargavi Pokala	Asst. Prof.	CVR College of Engineering, Hyd.		
10	A L N Arun Kumar	Asst. Prof.	CVR College of Engineering, Hyd.		
П	Sk Mohammed Shareef	Asst. Prof.	CVR College of Engineering, Hyd.		
12	Marripally Ravikumarq	Asst. Prof.	CVR College of Engineering, Hyd.		
13	T Sivanarayana	Asst. Prof.	Tirumala Engineering College, Hyd.		
14	G Phaneendra Kumar	Asst. Prof.	Tirumala Engineering College, Hyd.		
15	B Naresh	Asst. Prof.	Tirumala Engineering College, Hyd.		
16	Mahender Koduri	Asst. Prof.	Anurag Group of Institutions, Hyd.		
17	Godavarthy Krishna Teja	Asst. Prof.	Annrag Group of Institutions, Hyd.		
18	D Ramachandra Reddy	Student	Nalla Narasimha Reddy group of Inst., Flyd.		
19	Singireddy Sharath Kumar	Student	Nalla Narasimha Reddy group of Inst., Hyd.		

List of Internal Participants

Interna	Internal Participants (Faculty)		
S. No.	Participant name	Desgination	
ı	A C S Reddy	Assoc. Prof.	
2	V Ramakrishna	Asst. Prof.	
3	K Rajasekhar	Asst. Prof.	
4	K L N Murthy	Asst. Prof.	
5	D V Paleshwar	Asst. Prof.	
6	T Ravi	Asst. Prof.	
7	M Purushotham Reddy	Asst. Prof.	
8	B Sanjanna	Asst. Prof.	
9	K Nageshwar Rao	Asst. Prof.	

Internal	Internal Participants (Students)			
S. No.	Roll No.	Participant name		
Mechan	ical - IV year			
1	15VE1A0301	Adavalli Pooja		
2	15VELA0306	Bodlapati Dhanuja		
3	15VE1A0309	Chithaloori Samarkumar		
4	15VELA0310	Choolai Dilly Babu Shri Hari		
5	15VELA0313	Ganta Naveen Reddy		
6	15VELA0314	Gugulothu Srikanth		
7	15VELA0316	Honnur Mohammed Ishack		
8	15VE1A0320	Kasha Rakesh		
9	15VE1A0322	Komati Reddy Amaravathi		
10	15VE1A0325	Kotla Greeshma		
11	15VE1A0332	Mukul Singh Rathore		
12	15VE1A0335	Nadari Rajesh		
13	15VE1A0348	Surasura Ramu		
14	15VE1A0349	Vattipally Sridivya		
15	15VE1A0351	Yadala Akhil		
16	16VE5A0301	Ade Vamshi Krishna		
17	16VE5A0303	Bairoju Shivadeep		
18	16VE5A0308	Domalapatly Sandcep		
19	16VE5A0311	Kamitikari Sai Chand		
20	16VE5A0312	Kadari Jagadish Kumar		
21	16VE5A0322	Samala Pruthiviraju		
22	16VE5A0304	Banda Poorna Chandar Rao		
23	16VE5A0307	Chikkudu Suresh		
24	16VE5A0310	G Pravcenkumar		
25	15VE1A0355	Bade Akshay Kumar		
26	15VE1A0356	Bhukya Naveen		
27	15VE1A0358	Cherukumalli Akhil		
28	15VE1A0360	Chowdhary Giridhar		
S. No.	Roll No.	Participant name		

29	15VE1A0367	Ganta Akbar Ali	
30	15VE1A0369	Gujja Sai Kiran	
31	L5VE1A0371	J Balaji	
32	15VE1A0379	Kollala Tarun Sundar	
33	15VE1A0382	Loke Krishna Kanth	
34	15VE1A0385	Narayanadas Sai Kiran	
35	15VE1A0388	Palagummi Raja Sai Tejaswi	
36	15VE1A0389	Patii Akash	
37	15VE1A03A2	Vempati Krishna Chaitanya	
38	15VE1A03A3	Yammada N V S R Yeshwanth	
39	16VE5A0314	Lattupalli Harishkumar	
40	16VE5A0315	M Shiva Kumar	
41	16VE5A0318	Maragani Jagadeesh Gowd	
42	16VE5A0320	Nemuri Praveen	
43	16VE5A0321	Rajputh Rajender Singh	
44	16VE5A0324	Sura Akhil Kumar	
45	16VE5A0325	Gunđu Sai Teja	

Internal Participants (Students)		
S. No.	Roll No.	Participant name
Mechanical III year		
i	16VE1A0301	Aila Rudra Chary
2	16VE1A0308	Ch Ashrith Kumar
3	16VE1A0313	Ganta Goutham Yaday
4	16VE1A0330	Potnuri Srihari Rao
5	16VE1A0331	Potula Kiran Sai
6	16VE1A0334	Rapolu Jayachandra
7	16VE1A0337	Sherala Sanjay
8	16VE1A0340	T Pranav
9	16VE1A0342	Valaboju Anvesh
10	17VE5A0301	Bitra Koteshwara Rao
11	17VE5A0302	Buthapuli Vishal Hruday Kiran
12	17VE5A0303	Chakali Arunkumar
13	17VE5A0304	Challa Naveen
14	17VE5A0307	Darbha Robit Satya Venkata Sai
15	17VE5A0309	Gariganti Pavan Kumar
16	17VE5A0310	Gamepudi Venkata Mukesh Kumar
17	17VE5A0313	Govindu Sai Teja
18	16VE1A0348	Bhukya Ravi
19	16VE1A0359	Kachakayala Sumanth Reddy
20	16VE1A0361	Kolimi Yenosh Reddy
21	16VE1A0363	Kongari Sai Kiran
22	16VE1A0364	Kunoor Sai Sandeep Goud
S. No.	Roll No.	Participant name
23	17VE5A0314	Kasiboina Sateesh Kumar

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24	17VE5A0315	Kota Arunkumar
25	17VE5A0316	M Sai Chaitanya
26	17VE5A0321	Nalla Sai Vardhan
27	17VE5A0323	Paka Saikrishna
28	17VE5A0327	Siliveru Pothan Kumar
29	17VE5A0328	Sudhagani Sheshnanth
30	17VE5A0329	Veeramalla Shiva Prasanna Kumar
31	16VE5A0319	Namala Venugopal







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Certificate from the Local ISHRAE Chapter (on their letter head)

The student project entitled,
submitted by our chapter student members 1. Ms G.CLARIS SNIGDHA 2. Mr R.MANOJ KUMAR REDDY 3. Ms CH.SINDHU 4. Mr G.VENU KUMAR
is submitted here with to the Project Coordinator, ITC ISHRAE HQ, New Delhi.
If this project is selected for the grant, we ensure that the grant amount will be released based on the recommendation of ISPG committee.
We ensure that utilization certificate, state of expenditure, project completion report will be submitted to ISHRAE HQ on the successful completion of the Project.
Date : 26-08-2016 Name, Signature and Seal Place: Hyderabad
Student Chair Chapter President



Indian Society of Heating, Refrigerating and Air Conditioning Engineers K-43 (Basement) Kailash Colony. New Delhi - 110048, India

www.ishrae.in/studentchapter

Certificate from the Principal Team Leader and Grantee organization (On the letter head of the Organization)

Project Title:

- 1. I am submitting the above titled project proposal to ISHRAE for financial support.
- 2. If We agree to abide by the terms and conditions of the ISHRAE research grant.
- 3. If We have not submitted the project proposal elsewhere for financial support.
- 4. If We have requested for funds for the items, which are not available with the institution for the proposed work and are absolutely essential.

Date:

Name and signature

Name and

Place:

(Principal Team Leader)

(Project Guide)

Endorsement by the Head of the Institution

Certified that Project Proposal entitled "Mobile AC using R134a for spot cooling" is prepared by Shri G. Claris Snigdha under the guidance of Dr. Suresh Akella and has not been submitted to any other institution for funding.

The Institute will provide necessary regular staff and infrastructure facilities for the project work and such facilities have not been requested in the proposal.

The Institute will ensure compliance of the terms and conditions of the financial grant by ISHRAE and other conditions of the project.

Date: 26-08-2016 Place: Hyderabad.

Name, Signature and Seal Name: Dr. A. Suresh

Principal / Director of the Institute



Indian Society of Heating, Refrigerating and Air Conditioning Engineers K-43 (Basement) Kailash Colony

New Delhi - 110048, India www.ishrae.in/studentchanter

6	Potential Users and Suggested plan of action	Advancement in the human comfort and reliable.
7	Other information (if required)	This will be developed in Sreyas Institute with technical help from Techumsech Products Limited.



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BUDGET

S.no	ltem	Amount (Rs)		
0.110		Sep – Dec'16	Jan – March'17	Total
1	Equipment	27000		
2	Manpower	5000		
3	Consumables	1000		
4	Contingencies	1000		
5	Travel	2000		
	Total	36000		36000

PROJECT DESCRIPTION (Not more than 10 Pages)

1	Need for this Project	1 To satisfy the human comfort. 2 It is environmental friendly. 3 It is economical.	
2	Status of the work done in National / International Institutes	We are developing this in our college for the first time, no earlier such product is reported.	
3	Methodology	 Fabricate the 1.5tons air conditioning systems. The pack will be insulate with natural fiber coil and wrapped with thermal resistant resin. A frame work of aluminum rods and sheets will be made to hold box. Rotary compressors, evaporator and other thermostats will be posted. C type condenser will be at the bottom of frame. All the air conditioning coils, capillaries will be connected and refrigerant, ozone friendly. Testing in our R& AC lab. Report, patent and publications. 	
4	Project Deliverables	6months from the date of sanction.	
5	Time lines (in terms of work plan as per objectives)	Design, bought out components takes a month of time. Assembly and testing – two months. Finalizing product for market with analysis- two months.	



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PROJECT SUMMARY

1	Project Title	MOBILE AC FOR USING R134A FOR SPOT COOLING
2	Objectives	 We are using R134A which is an environmental friendly. We go for spot cooling then room cooling
3	Executive Summary of Project (Brief Description not exceeding 50 words)	Our main moto is to focus on spot cooling rather than cooling a whole room with less power bills.
4	Principal Lead and their team (Name and Contact Details)	Principal: Dr. A. Suresh, students: G. Claris Snigdha, R. Manoj Kumar Reddy, G. Venu Kumar, Ch. Sindhu.
5	Expected Duration (Not later than March 2017)	WITHIN TIME
6	Course Code and Subject name for which the project will be carried out	ME02, R AND AC.
7	Name of the Guide and contact details (Address, Email, Mobile no.)	K SAINATH, plot no:47,Lalitha Nagar Colony, Nagole, Hyd-68.mb no.7207889390
8	Amount of grant funds requested (Rs)	Rs. 36000
9	College Contribution?	Yes or No (If yes, please explain) YES, Bracing Workshop, Technicians, Consumables, Power etc.
10	Any other Industry Contribution?	Yes or No (If yes, please explain) NO
11	Local Chapter Contribution?	NO
12	How will ISHRAE be recognized for their funding of this project?	We will acknowledge in our technical paper and provide patent. While exhibiting the product we add the name of ISHRAE.
13	Anticipated use of funds (please also complete the Fund Expenditures below)	This product is unique and is used in small areas where spot cooling is required which reduces the power consumption. It is economical and environmental friendly.



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Performa for Submission of Proposals for ISHRAE Student Project Grant (ISPG)

Please complete all of the information requested in the following tables. All Submissions must be submitted electronically in PDF format by e-mail at rs.ishrae@gmail.com

Due Date: 26th Aug 2016, 5:00 P.M

Late or incomplete applications will not be accepted.

S.No	Item	Details
1	College Name	SREYAS INSTITUTE OF ENGINEERING & TECHNOLOGY, HYDERABAD
2	Faculty Advisor Name	K.SAINATH
3	ISHRAE membership number	22849
4	Principal of the College (Name, Address and email)	DR.SURESH AKELLA , PL. NO:119, INDU ARANYA HARITHA , BANDLAGUDA,NAGOLE,HYD, 500068.
5	Local ISHRAE Chapter Name and Address	DECCAN CHAPTER, Flat.No.201, 2nd Floor, Sri Apartments, Opp. Ashish Gardens, Bowenpally, SECUNDERABAD-500011
6	ISHRAE Student Chair at the local chapter Name and Address with Mobile and Email	PRK SUNDER, ISHRAE HYDERABAD DECCAN CHAPTER.
7	Is there a Student Chapter at your institution?	YES
8	Student Chapter Advisor	K.SAI NATH
9	Title of the Project	MOBILE AC USING R134A FOR SPOT COOLING
10	Amount Requested	Rs. 36000/-
11	Team Leader Name and Contact Details Mobile, Email	G.CLARIS SNIGDHA 8712967937, snigdha.rox7@gmail.com.



Indian Society of Heating, Refrigerating and Air Conditioning Engineers K-43 (Basement) Kailash Colony , New Delhi - 110048, India www.ishrae.in/studentchapter

Certificate from the Local ISHRAE Chapter (on their letter head)

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The student project entitled,	
submitted by our chapter student members	
1. Mr/Ms G.CLARIS SNIGDHA	
2. Mr/Ms R.MANOJ KUMAR REDDY 3. Mr/Ms CH.SINDHU &	
4. Mr/Ms G.VENU KUMAR	
is submitted here with to the Project Coordinator, ITC - ISHRAE HQ, New Del	hí
	•
If this project is selected for the grant, we ensure that the grant amount will be based on the recommendation of ISPG committee.	released
We ensure that utilization certificate, state of expenditure, project completion resubmitted to ISHRAE HQ on the successful completion of the Project.	eport will be
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	er President
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Certificate from the Principal Team Leader and Grantee organization (On the letter head of the Organization)

Mobile AC using RIBLAR for spot cooling Project Title:

1. I am submitting the above titled project proposal to ISHRAE for financial support.

2. If We agree to abide by the terms and conditions of the ISHRAE research grant.

3. If We have not submitted the project proposal elsewhere for financial support.

4. If We have requested for funds for the items, which are not available with the institution for the proposed work and are absolutely essential.

Date: 26-3-16
Place: Hyderabas

Name and signature

(Principal Team Leader)

(Project Guide)

Endorsement by the Head of the Institution

Certified that Project Proposal entitled "Hotale Ac Using R1349 for Spot Cooling Shri G. Claus Swing under the guidance of Dr Swiesh Akella and has not been submitted to any other institution for funding.

The Institute will provide necessary regular staff and infrastructure facilities for the project work and such facilities have not been requested in the proposal.

The Institute will ensure compliance of the terms and conditions of the financial grant by ISHRAE and other conditions of the project.

Date 26-8-16
Place Hyderabad

Principal / Director of the Institute

Design And Fabrication Portable AC With Cooling Chamber

¹i.Saichandu, ²Mr. K. Sainath ,³T. Kishen Kumar Reddy, ⁴Suresh Akella

¹M.Tech. Student, Department of CAD/CAM, Sreyas Institute of Engineering & Technology, Hyderabad ²Assistant Professor, Department of Mechanical Engineering, Sreyas Institute of Engineering & Technology, Hyderabad

³Professor of Mechanical Engg& Former Rector Jawaharlal Nehru Tech University Hyderabad ⁴Principal & amp; Professor in MED, Author Sreyas Institute of Engg& Technology, Nagole, Hyderabad

Abstract- The current project looks into creating a product which gives the user the comfort of two devices in one system. The basic advantage of the system is that two components run on a single compressor. The system is so formed that most of the refrigerant is moved to the air conditioning system and rest of the refrigerant is moved to cooling chamber thus producing maximum cooling through air conditioner and required cooling to the products through cooling chamber.

Keywords- Compressor, Condenser, Evaporator, Coefficient of Performance, compressor inspection, cooling chamber.

I. INTRODUCTION

The present dissertation is aimed at manufacture and assembly of vertical portable air conditioner. Nowadays people are facing problem of using restricted air conditioner which is confined to single room like split air conditioner so we have develop a solution in which the air conditioner can be move one place to another place conveniently without much effort. Also we have an advantage of just rotating and adjust back frame in order make it work as heat pump which can be changed accordingly to the season or place where climatic conditions are unpredictable.

The use of air conditioners, popularly known as AC, has become almost compulsory in number of homes and houses. In fact there are number of people who just can't live without AC, they will need AC in their room, office, car, theatre and almost everywhere as there are a number a number of heat sources like electric equipments, also the heat generated by our body due to the metabolic activity and to maintain purity of air, humidity content in order to meet human comfort conditions.

The heat extracted from the air is vented through an air duct that you install in an open window. The unit also condenses water from the air while cooling, collecting this in a tank or draining it away via a tube. Dryer air feels more comfortable and enhances the cooling effect. A venting kit is

included so you can seal the gap around the duct to stop the cool air escaping.

II. LITERATURE SURVEY

Heat as always been a problem in every country such as india. Doing work in a hot summer day can be tiring and are prone to make silly and unwanted mistakes. Vertical Mobile air conditioning systems are used across all transport modes including cars, buses, trucks and trains to keep drivers comfortable and cool while driving safely. This product is design with wheel which make it easier to move and install. With the simplest installation procedure, anyone can easily install the air conditioner to wherever they are desired [1]

Air-Conditioning cum Water dispenser system is a unique combination of air-cycle and water-cycle into a single unit. The project is mainly developed to modify the multifunctional unit which can provide cold water and hot water by using regular air conditioning system. Here we are using the refrigerant as the medium which is used to absorb & removes heat from the space which is to be cooled and rejected heat is arrested by condenser and it is used to heat the water i.e. geyser. This system may consist of compressor, condenser, evaporator, expansion valve, solenoid valve, reversing valve, copper tubes, heating and cooling thermostats. Here we used a single compressor to compress air cycle and water cycle. [2]

Now-are-days air conditioners are very commonly used. The AC produces comfort conditions in which the human beings tend to feel highly comfortable. In these conditions the working efficiency of the human beings becomes maximum. Broadly it is very easy to understand that we need AC because the surrounding temperature is very high. We used roll bond evaporator, also known as surface plated evaporators in our experiment to lower the temperature as this creates the cooling effect in the air conditioner. We used r-134a, r-22 refrigerants to compare the cooling effect in the refrigerant. [3]

A Mobile air conditioner is features component that designed vertically. Vertical air conditioner is portable and also used in windows that give cooling to the entire room. It observes the air from outside. They are sometime referred to as "casement" unit and refer to freestanding industrial units that are typically used in office building. Vertical air conditioner is designed to cool the person and small room also. Portable air conditioner is an innovation product originally from standard air conditioner that is limited to be used in room or inside building. Then, it is design to make it easier to move from one place to another. This product is design looks like a decoration tree which people mostly use it as an decoration in outdoor event such as wedding and talk. As we all notice that Malaysia has a tropical rainforest climate due to its proximity to the equator. It is hot and humid country all year round, with an average temperature of 27 °C (80.6 °F) and almost no variability in the yearly temperature.[4]

III. COMPONENTS

Air Conditioner

Air conditioners often use a fan to distribute the conditioned air to an occupied space such as a building or improve thermal comfort and indoor quality. Electric refrigerant-based AC units range from small units that can cool a small bedroom, which can be carried by a single adult, to massive units installed on the roof of office towers that can cool an entire building. The cooling is typically achieved through a refrigeration cycle, but sometimes evaporation or free cooling is used. Air conditioning systems can also be made based on desiccants (chemicals which remove moisture from the air) and subterraneous pipes that can distribute the heated refrigerant to the ground for cooling.

Air conditioning cycle

In the refrigeration cycle, heat is transported from a colder location to a hotter area. As heat would naturally flow in the opposite direction, work is required to achieve this. A refrigerator is an example of such a system, as it transports the heat out of the interior and into its environment. The refrisigerant is used as the medium which absorbs and removes heat from the space to be cooled and subsequently rejects that heat elsewhere.

Modern air conditioning systems are not designed to draw air into the room from the outside; they only recirculate the increasingly cool air on the inside. Because this inside air

always has some amount of moisture suspended in it, the cooling portion of the process always causes ambient warm water vapour to condense on the cooling coils and to drip from them down onto a catch tray at the bottom of the unit from which it must then be routed outside, usually through a drain hole. As this moisture has no dissolved minerals in it, it will not cause mineral buildup on the coils. This will happen even if the ambient humidity level is low. If ice begins to form on the evaporative fins, it will reduce circulation efficiency and cause the development of more ice, etc. A clean and strong circulatory fan can help prevent this, as will raising the target cool temperature of the unit's thermostat to a point that the compressor is allowed to turn off occasionally. A failing thermistor may also cause this problem. Refrigerators without a defrost cycle may have this same issue. Dust can also cause the fins to begin blocking air flow with the same undesirable result: ice.

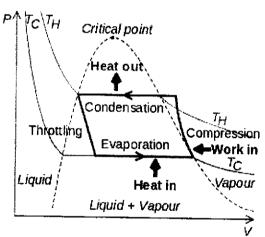


Figure 1: PV Diagram of VCRS

Part1: Compression

In this stage, the refrigerant enters the compressor as a gas under low pressure and having a low temperature. Then, the refrigerant is compressed adiabatically, so the fluid leaves the compressor under high pressure and with a high temperature.

Part 2: Condensation

The high pressure, high temperature gas releases heat energy and condenses inside the "condenser" portion of the system. The condenser is in contact with the hot reservoir of the refrigeration system. (The gas releases heat into the hot reservoir because of the external work added to the gas.) The refrigerant leaves as a high pressure liquid.

Part 3: Throttling

The liquid refrigerant is pushed through a throttling valve, which causes it to expand. As a result, the refrigerant now has low pressure and lower temperature, while still in the liquid phase. (The throttling valve can be either a thin slit or some sort of plug with holes in it. When the refrigerant is forced through the throttle, its pressure is reduced, causing the liquid to expand.)

Part 4: Evaporation

The low pressure, low temperature refrigerant enters the evaporator, which is in contact with the cold reservoir. Because a low pressure is maintained, the refrigerant is able to boil at a low temperature. So, the liquid absorbs heat from the cold reservoir and evaporates. The refrigerant leaves the evaporator as a low temperature, low pressure gas and is taken into the compressor again, back at the beginning of the cycle.

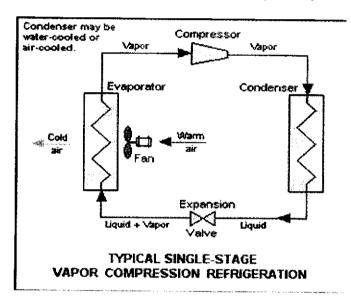


Figure 2: Typical single stage VCRS

Components and inspection

Rotary compressors are 'high pressure shell' type compressors. The suction on these compressors is taken directly into the compression chamber. Gas compressed in the compression chamber is discharged into the compressor casing. It should be noted that from a cold start-up, high pressure shell type compressors take longer to reach their normal operating pressure in the compressor shell. This is partly due to the larger volume of the compressor casing and partly as a result of refrigerant being trapped in the oil. Any refrigerant in the oil has to completely evaporate before condensing pressure can reach its operating level.

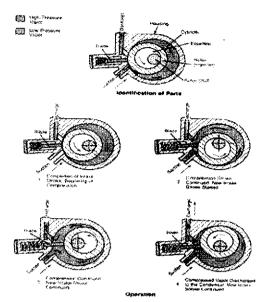


Figure 3: Operation of rotary compressor

Roll bond evaporator

Roll bonding is a solid state, cold welding process, obtained through flat rolling of sheet metals. In roll bonding, two or more layers of different metals are passed through a pair of flat rollers under sufficient pressure to bond the layers. The pressure is high enough to deform the metals and reduce the combined thickness of the clad material. The mating surfaces must be previously prepared (scratched, cleaned, degreased) in order to increase their friction coefficient and remove any oxide layers. The process can be performed at room temperature or at warm conditions. In warm roll bonding, heat is applied to pre-heat the sheets just before rolling, in order to increase their ductility and improve the strength of the weld. The strength of the rolled bonds depends on the main process parameters, including the rolling conditions (entry temperature of the sheets, amount of thickness reduction, rolling speed, etc.), the pre-rolling treatment conditions (annealing temperature and time, surface preparation techniques, etc.) and the post-rolling heat treatments

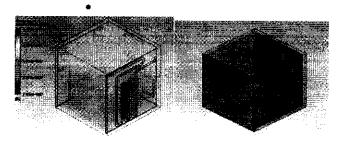
Evaporator

Evaporators are one of the main reasons why refrigeration, and therefore air conditioning, became practical for use in both home and industrial cooling. Simply put, an evaporator allows a contained pressurized liquid to turn into a gas. Evaporators allow a contained pressurized liquid into gas.

Analysis of Roll bond evaporator

Analysis of roll band evaporator ANSYS provides a complete simulation workflow for the design of composite structures. This process is very similar to the manufacturing process:

- Definition of base materials, fabrics and predefined stackups [layups]
- Intuitive definition of material orientation based on geometric attributes
- Global and local ply definition as when fabrics are laid onto a mold



Once the model has been setup, loads and boundary conditions are defined on the geometry and composite failure solutions can be computed. Then specific tools are available to analyze the potential failure of the product being designed:

Finally, the impact of design changes such as geometric variations can be easily investigated to understand the sensitivity of a design to such variations.

Mounting of compressor

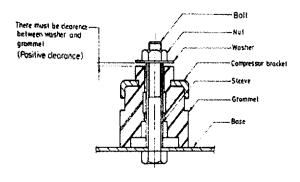


Figure: Mounting Of Compressor

It is therefore recommended that only correct type of grommets & sleeves be used. Use of grommets without sleeves will defeat the purpose of keeping the compressor

floating. This will result in the transmission of compressor vibration to the appliance.

The internal spring suspension provide in Tecumseh AW compressors absorbs most of the vibration of the reciprocating mass. However, it is necessary to provide specially designed rubber grommets on compressor legs to absorb the residual vibrations

The arrangement shown below ensures that the compressor remains floating after mounting in position.

IV. TESTING OF THE SYSTEM

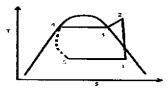
Leak testing of coils

Due to severe jolts in transportation there is every possibility of leaks developing in the brazed joints of coils. In order to detect these leaks & rectify them before further processing, leak test under a pressure of 20-25kg/cm with dry/commercial nitrogen has to be done. As these condenser/evaporator coils are small in size, it is suggested that the pressurised coil is dipped in clear water to detect leaks. The coils are to be kept immersed in water for at least 1 minute to detect minute leaks. If no leaks are found the coil is then processed further.

Operating Instructions

Use vacuum-pump oil in the pump when new. After 5 to 10 h of running time, change the oil. Make sure all of the original oil is removed from the pump. Thereafter, change the oil after every 30 h of operation when the oil becomes dark due to suspended solids drawn into the pump. Such maintenance will ensure peak efficiency in the pump operation.

If the pump has been operated for a considerable time on regular pump oil, drain the oil and replace with dual-purpose vacuum-pump oil. Drain the oil and re-place with dual purpose after 10 h of operation. The oil will probably be quite dark due to sludge removed from the pump. Operate the second charge of oil for 10 h and drain again. The second charge of oil may still be dark. However, it will probably be lighter in colour than the oil drained after the first 10 h.



T-S diagram of the system

Below is technical data observed from refrigeration cycle data book based on the readings.

			UUUK L	ascu ui	i inc rea	umgs.		
Pre	ssure	$\mathbf{v}_{\mathbf{f}}$	v_g	h _f	hg	h _{fg}	S	Sg
4.3	7 0 7	.0007 1	0.05	40.1	25.3	210. 11	0.15	0.93
11. 90	6 0	.0008 9	0.02	82.9 6	261. 37	178. 41	0.30 69	0.89

Technical data

Readings got from testing the system

Test readings

As observed the discharge gas is in super-heated region so the calculations are base on the superheated region

$$\begin{array}{lll} h_2 &= h_3 + C_{pg} \, (T_2\text{-}T_3) \\ &= 150.37 + 1.142 \, (325 \text{-} 302 \,) \\ h_2 &= 176.636 \, \text{kj/kg} \\ S_1 &= S_2 \\ S_{fi} &+ x_1 S_{fg} &= S_{\mathcal{L}} + C_{pg} \, \text{log}_c \, (T_2/T_1) \\ 0.159 + X_1 \, (0.93 \text{-} 0.15) &= 0.89 + 1.14 \, (325/295) \\ 0.159 + X_1 \, (0.78) &= 0.89 + 1.25 \\ X_1 &= 0.93 \, (\text{dryness fraction}) \\ h_i &= 176.636 + 0.93 \, (250.3 \text{-} 40.1) \, = \!\! 372.122 \, \text{kj/kg} \\ \text{Work done} &= h_2 - h_1 \\ &= 372.122 \text{-} 176.636 \\ &= 195.486 \, \text{kj/kg} \\ \text{Refrigeration effect} &= h_2 - h_5 \\ &= 176.636 \text{-} 82.96 \\ &= 93.676 \, \text{kj/kg} \\ \text{Refrigeration effect} &= h_1 \text{-} h_5 \\ &= 372.122 \text{-} 82.97 \\ &= 289.162 \, \text{kj/kg} \\ \text{Coefficient of performance} &= ---- \\ \hline \end{array}$$

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= 289

Work done

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- [2] Authors are Mr. KasubaSainath, Dr.SureshAkella.
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- [8] 'Design, assembly and testing of a mobile air conditioner 1.5 ton from an air cooler' (Thomson Reuters) IJERT in September 2015,
- [9] Authors are Mr.SainathKasuba ,Dr.TKK Reddy , Dr.SureshAkella , Mr. Mohan Reddy.
- [10] Estimation of Refrigeration side Heat transfer coefficient of Zero Ozone Depletion Refrigerant R134a used in Mobile AC in comparison with R22 Refrigerant' Published in(Thomson Reuters) IJLTET,ISSN:2278-621X, Vol-06,Issue-04,March-2016.
- [11] Authors are Mr. KasubaSainath ,Mr .P.S .Ravi, Mr. RajanSaini, Dr Suresh Akella.
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- [17] Authors are Mr. KasubaSainath, Mr. V. PrashanthReddy, Mr. G. Nikhil, Mr. YashoVardhan.

C.O.P

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- [19] Authors are KasubaSainath, TunikiSurenderSattaiah, SajeevkanthYalla, T. K. K. Reddy
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- [23] Authors are KasubaSainath, B. NikhilKumar, Sahith Suresh Akella. Shanagonda, Dr., Suresh Akella, Dr. T. K. K. Reddy.





REVIEW ARTICLE

Modification of Split Air Conditioner for Cold water and Hot water * K.Sainath¹, Sandeep Enakoti², T K K Reddy³(Former rector of JNTU Hyderabad), Dr. Suresh Akela⁴

1, 2 and 4 Mechanical Engineering Department, SREYAS Institute of Engineering and Technology, Hyderabad, India

ABSTRACT

The project is mainly developed to modify the multifunctional unit which can provide cold water and hot water by using regular air conditioning system. Here we are using the refrigerant as the medium which is used to absorb & removes heat from the space which is to be cooled and rejected heat is arrested by condenser and it is used to heat the water i.e. geyser. This system may consist of compressor, condenser, evaporator, expansion valve, solenoid valve, reversing valve, copper tubes, heating and cooling thermostats. By using a single compressor to compress air cycle and water cycle, the air cycle is the conventional vapour compression cycle whereas the water cycle is the adaptation of the same.

Keywords: Reversing valve, solenoid valve, heating and cooling thermostats.

INTRODUCTION

Air-Conditioning cum Water dispenser system is a unique combination of air-cycle and water-cycle into a single unit. "Air-conditioning" is the simultaneous control of temperature, humidity, motion and purity of the atmosphere in confined space. "Water-dispenser system" is sequential process of controlling the temperature, motion and purity of water which is being circulated in the closed system. Thus in an "Air-conditioning cum Water-dispenser system" controlled, cleaned, purified, filtered air and water with better efficiency.

Split air conditioning system:

A split air conditioner is a sustainable alternate to centralized air conditioner systems. It adequately cools a standard-sized house without requiring extensive installation costs & effort. Split air conditioners are home appliances that do not require ductwork, which reduces energy expenditures. Still, many homeowners step away from a split air conditioner system because they do not know how it works or why it is a feasible choice. Read on further information about the function and installation of split air conditioner systems.

Components and Function of a Split Air Conditioner:

Compression: The refrigerant sucked to the compressor through the suction line. Afterward the refrigerant compressed into the compressor and the compressed refrigerant being discharged to the condenser unit through the discharge line.

Condensation: When the high pressure refrigerant vapour enters the condenser heat flows from condenser to cooling medium thus allowing vaporized refrigerant to return to liquid state.

Expansion: After condenser the liquid refrigerant is stored in the liquid receives until needed. From the receiver it passes through an expansion value where the pressure is reduced sufficiently to allow the vaporization of liquid at a low temperature of about – 10 degree centigrade.

Vaporization: The low pressure refrigerant vapour after expansion in the expansion valve enters the evaporator on refrigerated space where a considerable amount of heat is absorbed by it and refrigeration is furnished.

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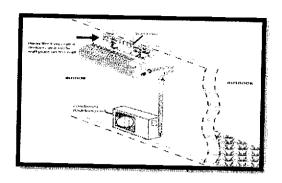


Figure 1: Split Air-Conditioning System

From the heat transfer analysis we would get the temperature dissemination due to the heat of welding which is modeled using Load vector. The 1D model also uses the symmetry of thermal load and material in the base materials joined by lap welding process. The variation is assumed only in the lateral direction and is assumed to be same along the depth and the thickness resulting in the simple 1D model. In this study two similar Martensitic Pieces are subjected to the heat required to obtain above 1460°C at the weld fusion zone. The distribution of this is seen is seen as a temperature nodal output. Linear shape functions are used to obtain, conduction, convection and load vectors. In further study the temperature output is used in obtaining structural distortion and residual stresses.

Refrigerants

Refrigerants are the liquid agents dehumidify and cool indoor air and exist within the coils of air conditioner.R-22(Freon) is the most common used refrigerant in air-conditioning systems was R-22.

R-22(The Old Standard)

Acting in accordance with an international treaty called the Montreal Protocol, United States. Environmental Protection Agency (EPA) has mandated the phase out of R-22 through the Clean Air Act. As of 2010, as per the act, the manufacture of systems using R-22 refrigerant will be prohibited, and by 2020 the production itself of R-22 must cease.

The trigger for this regulatory action is due to the fact that R-22 is a hydro chlorofluorocarbon (HCFC) compound, which contains ozone-depleting chlorine.

LITERATURE SURVEY:

- 1. Carbon Trust, "Heat recovery: A guide to key systems and applications," 2011.Air conditioning systems remove heat from living spaces and expel this to the outside air. This waste heat can be recovered and used to heat water.
- 2. Dr. U. V.Kongrea, A. R. Chiddarwarb, P. C. Dhumatkarc, "The condenser consist of coils of pipe in which the high pressure & temperature vapour refrigerant is cooled & condensed. The refrigerant, while passing through the condenser, gives up its latent heat to the surrounding condensing medium which is normally air or water 2013.

COMPONENTS:

- Compressor
- B. Condenser
- C. Expansion valve
- D. Evaporator
- > THE ABOVE COMPONENTS ARE ESSESNTIAL FOR ANY AC & REFRIGERATING DEVICES, THE OTHER COMPONENTS WE ARE USING ARE:
- a. Reversing valve
- b. Non-returning value (3/8)
- c. Solenoid valve
- d. Heating Thermostat
- e. Cooling thermostat
- f. Copper tubes (3/8 & ½)
- Bubbletop (10L)
- h. Float valve
- i. Hot water tank (20L)

RECIPROCATING COMPRESSOR:

Like Automotive Engines, these compressors have piston and cylinder arrangement and these are the most widely used refrigerating compressors. The reciprocating motion of the piston due to external power compresses the refrigerant inside the cylinder.

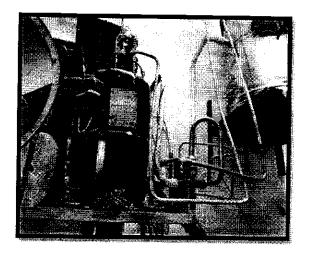


Figure 2: Reciprocating Compressor

CONDENSOR:

It removes the heat of the hot vapors refrigerant discharged from the compressor. The heat from the hot vapor refrigerant in a condenser is removed first by transferring it to the walls of the condenser tubes and then from the tubes to the condensing and cooling medium. The cooling medium may be air or water or a combination of these two.

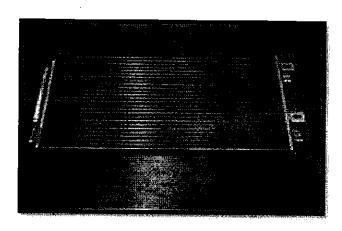


Figure 3: Condenser

EVAPORATOR:

Evaporator absorbs heat from the surrounding location or medium which is to be cooled by means of the refrigerant. The refrigerant enters the evaporator where it boils and changes into vapour. The temperature in the evaporator must always be less than that of the surrounding medium so that heat flows to the refrigerant.

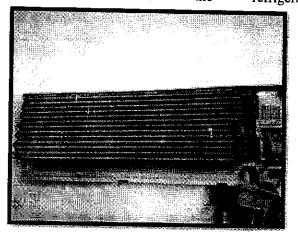


Figure 4: Evaporator

REVERSING VALVE:

An electro-mechanical four way valve which reverses the direction flow of refrigerant (Freon), using an electrical magnet is the reversing valve. It works very similar to your washer's water valve or solenoid valve. When you connect electricity to a valve basically energizing it, it opens and lets water in and when you disconnect the electricity basically de-energizing it, it closes the valve and water stops flowing.

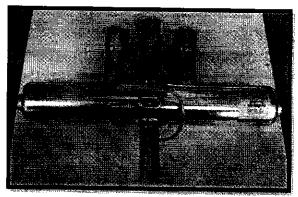


Figure 5: Reversing Valve

NON RETURNING VALVE:

A non-returning valve feature is that it allows a medium to flow in only one direction. A non-return valve is fitted to ensure that a medium flows through a pipe in the right direction, where pressure conditions may otherwise cause reversed flow.

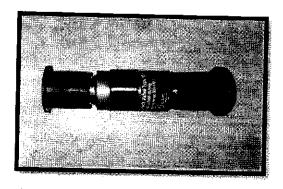


Figure 6: Non-Returning Valve

COPPER TUBES:

Tubes are used for flow of refrigerant i.e., gas

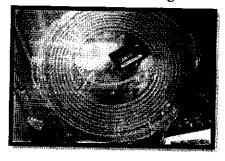


Figure 7: Copper Tubes

HOT WATER TANK:

Hot water tank it stores hot water and acts as geyser in our project. In this tank we kept one float level device which is used to adjust the water level

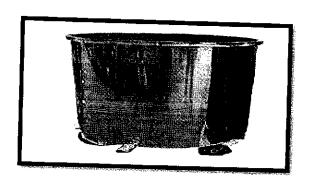


Figure 8: Water Tank

THERMOSTATS:

Thermostats are used in any device or system that heats or cools to a set point temperature. A thermostat exerts control by switching heating or cooling devices on or off, or by regulating the flow of a heat transfer fluid as needed, to maintain the correct temperature.



Figure 9: Thermostat

SOLENOID VALVE:

Solenoid valve is also known as an electricallyoperated valve.

- It's an automatically operated value.
- Solenoids operate using an electromagnetic solenoid coil to change the state of a valve from open to closed, or vice-versa.
- The default state of valve is 'normally closed'. On energising the coil, the valve gets lifted open by the electromagnetic force produced by the coil.

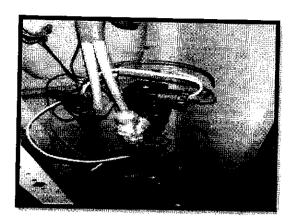


Figure 10: Solenoid Valve

BUBBLE TOP:

The device is used for storing water. This device produces cool water & mostly it is applicable for home purposes.

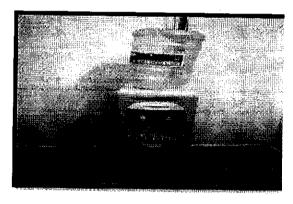
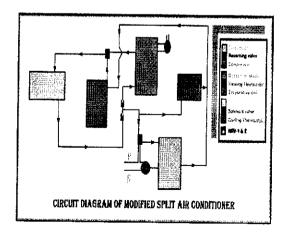


Figure 11: Water Dispenser System

Circuit Diagram of modified split AC:



MODIFICATION OF SPLIT AC WORKING:

- In outdoor unit compressor discharge side we are using reversing valve and hot gas around 90 degree Celsius to 120 degree Celsius are discharge to tank 20 litres' water inlet temperature around 27 degree Celsius to 30 degree Celsius and outlet temperature 60-70 degree Celsius for cut off using a thermostat.
- ➤ If temperature achieve and thermostat cut off the solenoid valve in other direction reversing valve function.
- Then the gas will go to AC both the liquid lines are connected to solenoid valve is going to container 10 litres' inlet.
- ➤ We are providing an expansion valve for chilling the water after achieving the temperature 13 degree Celsius.
- Cooling thermostat cut off will comment to the solenoid valve gas flow to the indoor unit after air cool evaporator reverse goes to the compressor.
- Cycle is repeated

CALCULATIONS:

PRESSURE VALUES:

1) SUCTION PRESSURE = 68 P (POUND FORCE PER SQUARE INCH)

2) DISCHARGE PRESSURE = 18 kg/cm²

CONVERSIONS OF UNITS

Suction pressure = 65 PSI

1 PSI = 0.0689476 bar

68PSI = 4.68 bar

 $18 \text{kg/cm}^2 = 18.737 \text{ bar}$

Specific value at constant pressure gas (R22)

 $C_{pg}=1.142 \text{ kJ/kg K}$

Temperature $T_1 = 30 + 273 = 303 \text{ K}$

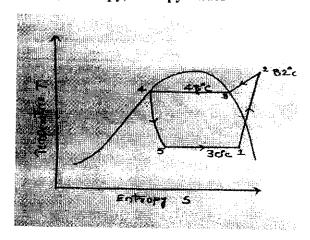
Temperature T₂=48+273=321 K

Temperature T₃=82+273=355 K

Table no.5.3:

Pressur e (Bar)		rific enth g	alpy in	Specific entropy in Kj/kg K	
<u></u>	hf	hfg	hg	sf	sg
	0.0	208.6	251.	0.167	
4.68	5	2	1	5	0.937
ļ		153.9	263.	0.391	0.8709
18.737	110	5	9	5	

Pressure, Enthalpy, Entropy values



Fig(5.1): T-S Diagram

CONCLUSION:

By using a water cooler and air cooler as a room cooler you can save 80% of the energy consumed by

- a 2 ton wall AC. Besides, this experiment can be used in cooling rooms, offices and halls and also cools water becomes a universally accepted option in India too.
 - Depending on specific situations, this run parallel to, compete with or even replace air conditioning system. When that happens the cost of water cooling and air conditioning devices will come down dramatically.
 - On the basis of this experiment 1 have found that a water cooler that cools ten litres of water down to 8C in an hour can be an ideal room cooler to bring the temperature of room air by 18C for a room of about 12 sq. feet.

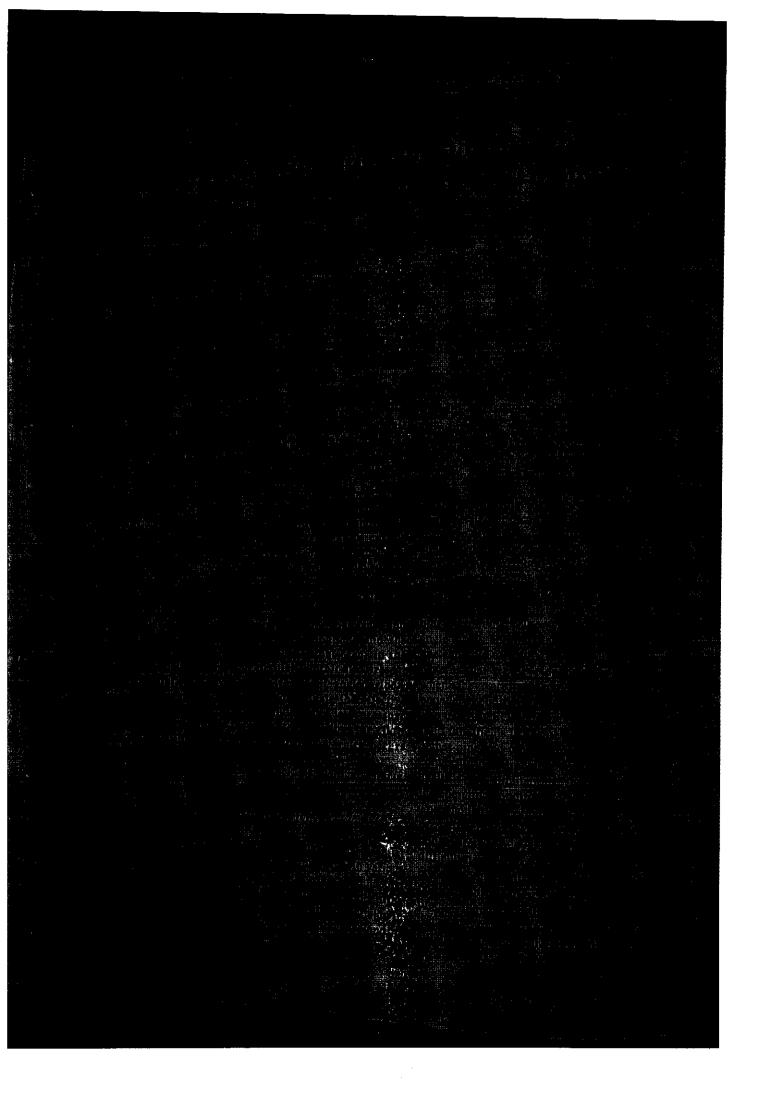
FUTURE SCOPE:

- 1. In summer seasons we can cut-off the hot water lane
- 2. In winter season we can cut-off the cool water lane
- 3. Hot gas lane can be used for other external purpose
- **4.** The working of air conditioner can be modified in any seasons
- 5. By decreasing the copper tubes we can increase the Efficiency

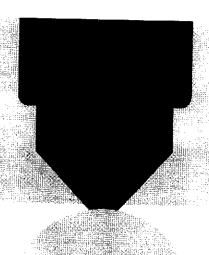
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- Overview of "HVAC Systems" in General Aspects' Paper Id No.1488 has been published in Volume-02, Issue-12, December-2014 with ISSN No. 2321-0653 in 'IJRASET"/International Journal for Research in Applied Science and Engineering'



CERTIFICATE OF



STAGE 2 INNOVATOR

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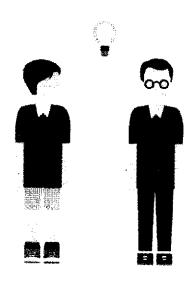
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FORMAT OF REPORT

1) Program details

- (a) Title of the Programme: NATIONAL LEVEL WORKSHOP ON FINITE ELEMENT ANAYSIS USING MATLAB
- (b) Date(s) of the programme: 5th to 6th October 2018
- (c) Venue Details: Main Auditorium
 Sreyas Institute Of Engineering & Technology
 Beside Indu Aranya, GSI, Bandlaguda, Nagole, Hyderabad,
 Telangana 500068
- (d) Name of the Implementing Agency
 Department of mechanical Engineering
 Sreyas Institute Of Engineering & Technology
 Beside Indu Aranya, GSI, Bandlaguda, Nagole, Hyderabad,
 Telangana 500068
- (e) Coordinator of the Program (Name, Designation, Department, Organisation/ Institution, Address, Phone Number, E-mail Id): Dr.P.M DIAZ

Associate Professor
Department of Mechanical Engineering
SREYAS institute of engineering and technology
Beside Indu Aranya, GSI, Bandlaguda, Nagole,
Hyderabad, Telangana 500068
+91-9443558554
pauldiaz@srevas.ac.in

2) Report

(a) Inaugural function details



Indian Society of Heating, Refrigerating and Air Conditioning Engineers K-43 (Basement) Kailash Colony, New Delhi - 110048, India

www.ishrae.in/studentchapter

Certificate from the Local ISHRAE Chapter (on their letter head)

The student project entitled,
submitted by our chapter student members 1. Ms G.CLARIS SNIGDHA 2. Mr R.MANOJ KUMAR REDDY 3. Ms CH.SINDHU & 4. Mr G.VENU KUMAR is submitted here with to the Project Coordinator, ITC – ISHRAE HQ, New Delhi.
If this project is selected for the grant, we ensure that the grant amount will be released based on the recommendation of ISPG committee.
We ensure that utilization certificate, state of expenditure, project completion report will be submitted to ISHRAE HQ on the successful completion of the Project.
Date : 26-08-2016 Name, Signature and Seal Place: Hyderabad
Student Chair Chapter President



Indian Society of Heating, Refrigerating and Air Conditioning Engineers

K-43 (Basement) Kailash Colony. New Delhi - 110048, India

www.ishrae.in/studentchapter

Certificate from the Principal Team Leader and Grantee organization (On the letter head of the Organization)

Project Title:

- 1. I am submitting the above titled project proposal to ISHRAE for financial support.
- 2. If We agree to abide by the terms and conditions of the ISHRAE research grant.
- 3. If We have not submitted the project proposal elsewhere for financial support.
- 4. If We have requested for funds for the items, which are not available with the institution for the proposed work and are absolutely essential.

Date:

Name and signature

Name and

Place:

(Principal Team Leader)

(Project Guide)

Endorsement by the Head of the Institution

Certified that Project Proposal entitled "Mobile AC using R134a for spot cooling" is prepared by Shri G. Claris Snigdha under the guidance of Dr. Suresh Akella and has not been submitted to any other institution for funding.

The Institute will provide necessary regular staff and infrastructure facilities for the project work and such facilities have not been requested in the proposal.

The institute will ensure compliance of the terms and conditions of the financial grant by ISHRAE and other conditions of the project.

Date: 26-08-2016 Place: Hyderabad. Name, Signature and Seal Name: Dr. A. Suresh

Principal / Director of the Institute



Indian Society of Heating, Refrigerating and Air Conditioning Engineers K-43 (Basement) Kailash Colony,

K-43 (Basement) Kailash Colony , New Delhi - 110048, India www.ishrae.in/studentchanter

6	Potential Users and Suggested plan of action	Advancement in the human comfort and reliable.
7	Other information (if required)	This will be developed in Sreyas Institute with technical help from Techumsech Products Limited.



Indian Society of Heating, Refrigerating and Air Conditioning Engineers K-43 (Basement) Kailash Colony New Delhi - 110048, India

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BUDGET

S.no	ltem	Amount (Rs)			
0.110	116111	Sep – Dec'16	Jan - March'17	Total	
1	Equipment	27000	-		
2	Manpower	5000		 	
3	Consumables	1000			
4	Contingencies	1000		<u> </u>	
5	Travel	2000			
	Tota	36000		36000	

PROJECT DESCRIPTION (Not more than 10 Pages)

1	Need for this Project	1 To satisfy the human comfort. 2 It is environmental friendly. 3 It is economical.	
2	Status of the work done in National / International Institutes	We are developing this in our college for the first time, no earlier such product is reported.	
3	Methodology	 Fabricate the 1.5tons air conditioning systems. The pack will be insulated with natural fiber coil and wrapped with thermal resistant resin. A frame work of aluminum rods and sheets will be made to hold box. Rotary compressors, evaporator and other thermostats will be posted. C type condenser will be at the bottom of frame. All the air conditioning coils, capillaries will be connected and refrigerant, ozone friendly. Testing in our R& AC lab. Report, patent and publications. 	
4	Project Deliverables	6months from the date of sanction.	
5	Time lines (in terms of work plan as per objectives)	Design, bought out components takes a month of time. Assembly and testing – two months. Finalizing product for market with analysis- two months.	



Indian Society of Heating, Refrigerating and Air Conditioning Engineers K-43 (Basement) Kailash Colony New Delhi - 110048, India

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PROJECT SUMMARY

1	Project Title	MOBILE AC FOR USING R134A FOR SPOT COOLING
2	Objectives	We are using R134A which is an environmental friendly. We go for spot cooling then room cooling
3	Executive Summary of Project (Brief Description not exceeding 50 words)	Our main moto is to focus on spot cooling rather than cooling a whole room with less power bills.
4	Principal Lead and their team (Name and Contact Details)	Principal: Dr. A. Suresh, students: G. Claris Snigdha, R. Manoj Kumar Reddy, G. Venu Kumar, Ch. Sindhu.
5	Expected Duration (Not later than March 2017)	WITHIN TIME
6	Course Code and Subject name for which the project will be carried out	ME02, R AND AC.
7	Name of the Guide and contact details (Address, Email, Mobile no.)	K SAINATH, plot no:47, Lalitha Nagar Colony, Nagole, Hyd-68.mb no.7207889390
8	Amount of grant funds requested (Rs)	Rs. 36000
9	College Contribution?	Yes or No (If yes, please explain) YES, Bracing Workshop, Technicians, Consumables, Power etc.
10	Any other Industry Contribution?	Yes or No (If yes, please explain) NO
11	Local Chapter Contribution?	NO
12	How will ISHRAE be recognized for their funding of this project?	We will acknowledge in our technical paper and provide patent. While exhibiting the product we add the name of ISHRAE.
	han-	



Indian Society of Heating, Refrigerating and Air Conditioning Engineers

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Performa for Submission of Proposals for ISHRAE Student Project Grant (ISPG)

Please complete all of the information requested in the following tables. All Submissions must be submitted electronically in PDF format by e-mail at rs.ishrae@gmail.com

Due Date : 26th Aug 2016, 5:00 P.M

Late or incomplete applications will not be accepted.

S.No	ltem	Details
1	College Name	SREYAS INSTITUTE OF ENGINEERING & TECHNOLOGY, HYDERABAD
2	Faculty Advisor Name	K.SAINATH
3	ISHRAE membership number	22849
4	Principal of the College (Name, Address and email)	DR.SURESH AKELLA , PL. NO:119, INDU ARANYA HARITHA , BANDLAGUDA,NAGOLE,HYD, 500068.
5	Local ISHRAE Chapter Name and Address	DECCAN CHAPTER, Flat.No.201, 2nd Floor, Sri Apartments, Opp. Ashish Gardens, Bowenpally, SECUNDERABAD-500011
6	ISHRAE Student Chair at the local chapter Name and Address with Mobile and Email	PRK SUNDER, ISHRAE HYDERABAD DECCAN CHAPTER.
7	Is there a Student Chapter at your institution?	YES
8	Student Chapter Advisor	K.SAI NATH
9	Title of the Project	MOBILE AC USING R134A FOR SPOT COOLING
10	Amount Requested	Rs. 36000/-
11	Team Leader Name and Contact Details Mobile, Email	G.CLARIS SNIGDHA 8712967937, snigdha.rox7@gmail.com.



Indian Society of Heating, Refrigerating and Air Conditioning Engineers K-43 (Basement) Kailash Colony , New Delhi - 110048, India www.ishrae.in/studentchapter

Certificate from the Local ISHRAE Chapter (on their letter head)

The student project entitled,
submitted by our chapter student members
1. Mr/Ms G.CLARIS SNIGDHA 2. Mr/Ms R.MANOJ KUMAR REDDY 3. Mr/Ms CH.SINDHU & 4. Mr/Ms G.VENU KUMAR
is submitted here with to the Project Coordinator, ITC - ISHRAE HQ, New Delhi.
If this project is selected for the grant, we ensure that the grant amount will be released based on the recommendation of ISPG committee.
We ensure that utilization certificate, state of expenditure, project completion report will be submitted to ISHRAE HQ on the successful completion of the Project.
B-Nithi kuman
Date Name, Signature and Seal
Place
Student Chair Chapter President



Indian Society of Heating, Refrigerating and Air Conditioning Engineers K-43 (Basement) Kailash Colony, New Delhi - 110048, India www.ishrae.in/studentchapter

Certificate from the Principal Team Leader and Grantee organization (On the letter head of the Organization)

Project Title:

Mobile AC Using RIBLA for Spot Cooling

1. I am submitting the above titled project proposal to ISHRAE for financial support.

2. If We agree to abide by the terms and conditions of the ISHRAE research grant.

3. If We have not submitted the project proposal elsewhere for financial support.

4. If We have requested for funds for the items, which are not available with the institution for the proposed work and are absolutely essential.

Date: 26-9-16

Place: Hyderabal

Name and signature

(Principal Team Leader)

Mr. K. Sainath

(Project Guide)

Endorsement by the Head of the Institution

Certified that Project Proposal entitled " Hotelice Ac Listing R1344 for Spot Cooking Shri G: Craw Swiger under the guidance of Dr Sweeth Artella and has not been submitted to any other institution for funding

The Institute will provide necessary regular staff and infrastructure facilities for the project work and such facilities have not been requested in the proposal.

The Institute will ensure compliance of the terms and conditions of the financial grant by ISHRAE and other conditions of the project.

Date 26-9-16
Place Ingovaluation

Name, Signature and Seal

Principal / Director of the Institute

IDEATHON – Turning an idea into reality

Innovatio Start-up forum presented IDEATHON – Turning an Idea into Reality on 29th February 2020. The event was organized by INNOVATIO Drop – Mr. P Shadrach Sudershan and Sreyas Institute of Engineering & Technology.

The Chief Guest for the event was Mr. Chintakindi Mallesham is a recipient of Padma Shri, the fourth highest civilian award of India for the year 2017. He hails from Telangana and has been acclaimed for his invention of the Lakshmi Asu machine that reduced the efforts required by weavers in Pochampally.

All the attendees were immersed in his life story, as he narrated it briefly. His story becomes a great inspiration to the students and his suggestions were taken into consideration for sowing the innovative seed into the students mind.

More than 250 + students have participated in the event, where forenoon was carried with the inspiring speech by Mr. Mallesham and afternoon the student teams have presented their innovative ideas to the mentors cum judges to select the best idea for materialization.

Secretary Mr. Ravidranath Yadav, Vice Chairman Mr. Hriday Reddy and Principal Dr. Suresh Akella, EDC Co-ordinator Mr K.Sainath, has felicitated the Chief Guest Mr. Chintakindi Mallesham and thanked him for visiting the campus. They have also appreciated all the student participants and congratulated the organizers for conducting a fruitful event.



DEATHON 29 FEB2020 HJYDERARAD

INNOVATIO STARTUP FORUM

innovatiostartupforum@gmail.com

Inspired by the concept of "hackathon," Innovatio Start-Up forum developed "Ideathon", a platform for the "Youth" to generate innovative solutions to problems they face in their communities. Ideathon uses a project based competition model to help young people realize their innate capacity to serve as agents of positive change. Youth gain soft skills—personal qualities and characteristics that enable

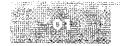
someone to interact effectively with other

help them design an innovative and feasible project that tackles a local community challenge. Soft skills training includes time management, collaborating with each other, and communicating. Youth who compete successfully get to implement their projects with assistance from Innovatio drop and Sreyas Institute of Engineering and Technology, and with the support Innovatio Hub.

Ideathon has changed my mindset, it was a great experience meeting people with similar perspectives,
I plan to start a business." – Sricharana Indaram, ECE

We wanted to create a platform for students to express their ideas. Students from various colleges took part - SIET, CBIT, VJIT, GNIT and JNTUH"





innovators



STARTUP FORUM

innovatiostartupforum@gmail.com

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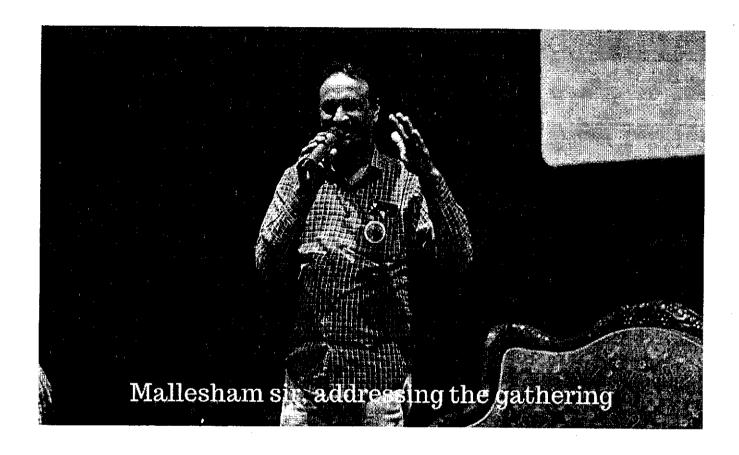
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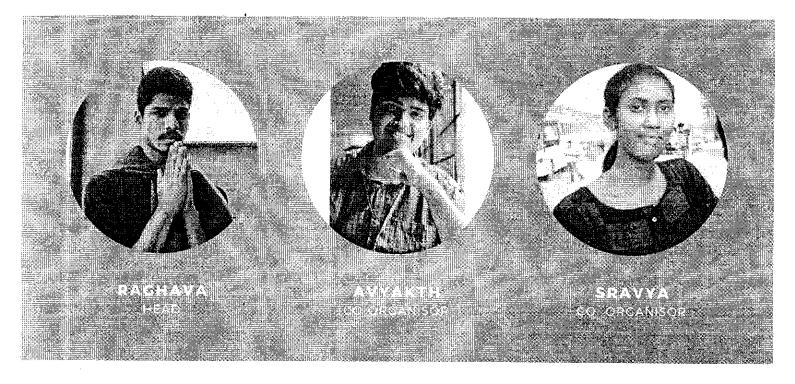


A LITTLE BIT ABOUT OUR CHIEF GUEST
CH.MALLESHAM GARU
(PADMA SHRI AWARDEE)

Site Charthag and Mallesham, son of a weaver from a shield cown called. Shirajpet in telescipants is an innovator who is entersty actives to mucco the nam of his rand dom economics to engaged in Pochampalli's tradition of weaving. His seven-year endeavor his actimate the manual weaving process performed by women of his community to teduce their drudgers has been a book to the weavers in many aspects.

This ameging Asu machine has been named after his mother Laxm: Asu

THE AWESOME PEOPLE BEHIND IDEATHOR



I'm glad that I was given this opportunity to work with this wonderful team that never stops striving for the best-Sravya. Co-organisor

ideathon 2020 was an amazing experience for each TEAMROLES and every individual. The soft-belief in rise to the occasion was the stand out feature it wasn't a one nan's show for sure, a team effort indeed. The team acted accordingly to every new challenge tossed do to them, be it media management or handling the crowd the spontaneity was incredible to see Each one of them played a care in the success of the event, putting the team ahead of mamseives. the settlers nature of the team was indeed alg eat sight to see.

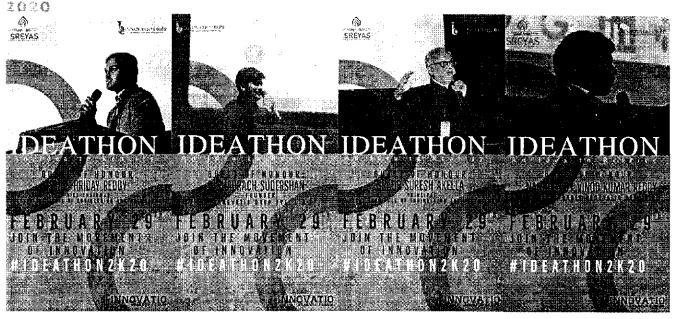
innevatioStart-up Forum is grateful to tall the contributions that came through Reachon ar endeavor to be cherished in the years to be year.

Shreyas Reddy

Raghava Ravuri S Sai Ram Avyakth K.Sravya Mughaisa fatima naseha Jampani.Sri Vineeth Chowdary Mohammed Abdullah khan Pravalika Pooja Sumanth Gautham Reddy Chigullapally Rahul Minampati Jayanth Narayan Subodh Reddy Roshni Mandarapu Anish

Organizer Co-Organiser Ca-Organiser Team Manager Media Editor Media Manager Creative Manager Logistics Manager Co-Producer Performance Manager Producer Film Producer Executive Film Producer Statics Manager Co-Logistics Manager Content Manager

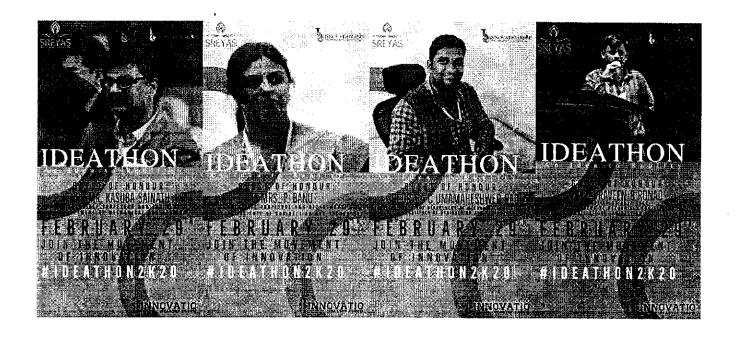
ACADEMICIANS, TECHNOCRATS, ENTREPRENEURS -WITNESSED IDEATHOR



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THIS SECTION INCLUDES THE METHODS WHICH WILL EVALUATE THE PROCRESS IN ACHIEVING THE PRODUCT RESULT.



The Evaluators played a prominent return guiding the students, giving them some wiscom on how to develop a plant more mention if exame in duritions.

TSUCCESS IS DETERMINED

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54 TURESS:

THIS SECTION INCLUDES THE METHODS WHICH WILL EVALUATE THE PROCESS IN ACHIEVING THE PROJECT RESULT.



Wento's play an important reconstruction in comments to the emplementation of an idea since they are experienced individuals in their respective fields. Shashikanth and Republisher are two individuals who have devoted their time to halo aim dreams into reality he propuls "humans" to make this world their brace".

THE MUST INVEST IN NEW
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CONSUMERS LEARN ABOUT
THE BENEFITS OF
PARTICIPATING IN TRIALS.
IN A HOND IS ONG WAY
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THE TWO DOTANT CAUSE.

Researchers at the University of Citrigon. In Spotiand have developed an electronic skin that can generate and store steptimizing this in posthetic devices. By implementing this in robotic prosthetic hand, humans to allow some the touch of another human boing and also do their work very procisally, like performing a task of removing a pin from a box. Graphene wased skin is used on the hand, take with many graphene based products, income mostly in the testing and research phase but its clear that the application of graphene can bring about a new erain the field.

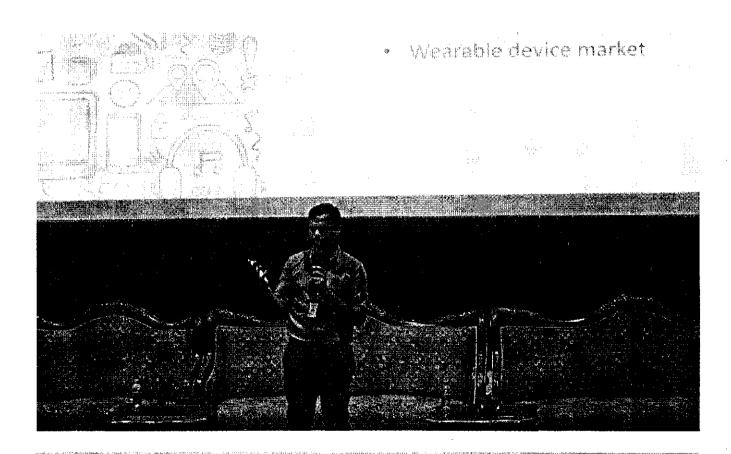
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VERY PROACTIVE, I WASN'T
MOVE AWARE OF THINGS, BUT
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The ring features a CPS tracker, that can give you a rive location of the user. This location can be accessed by one of the contacts set not the user during emergences. The nanciech used in the project enables the users to trigger SOS services by prossing and holding the top and bottom halves of the ting for five conds. This sends an about signal to the chone, contracted by toT and sends on smergency after to hearby emergency services. Holding the ring further more can make a load brop house that can immediately grab attention, this can be very user. First unity for women's vafety but also for a notify procele during medical emergency es

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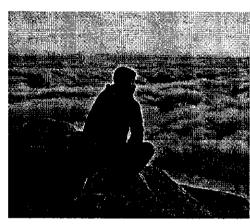


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The first studies creating all elective project plan is to set a bussine the buseline is the foundation on which the other project elements will be built on. This must include a scope statement. Studby identifying what pusiness need the project aims to add sas and now the

THE SECTION ASSESSMENT

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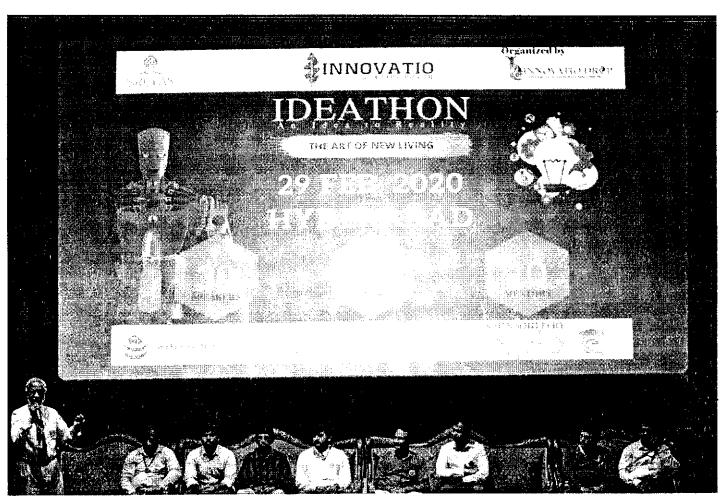


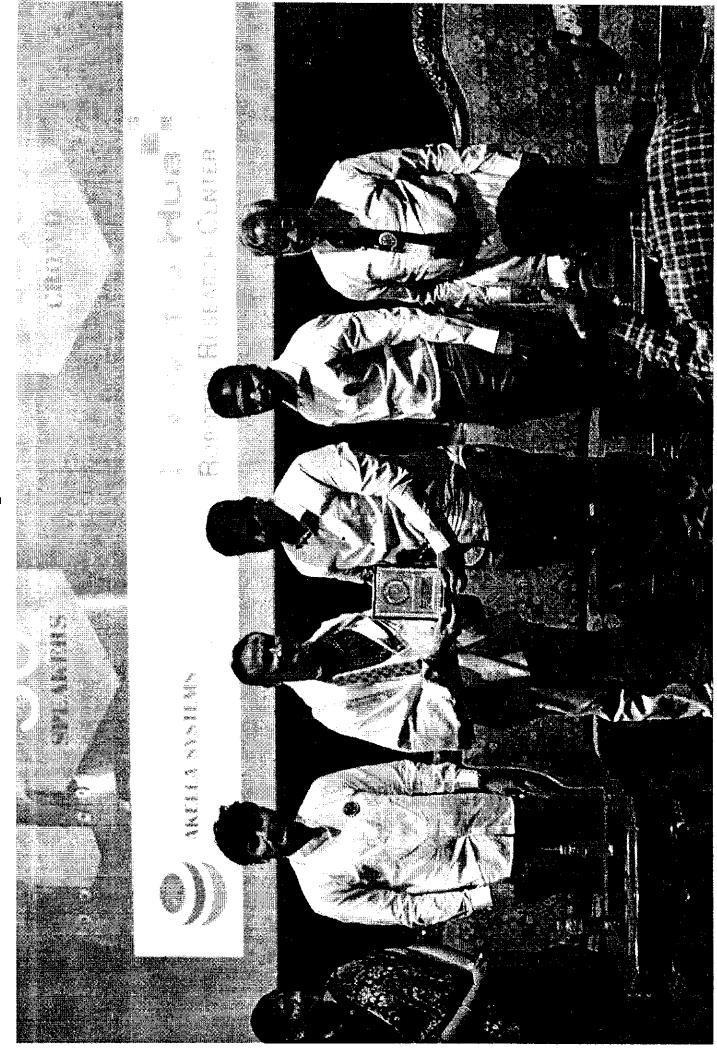


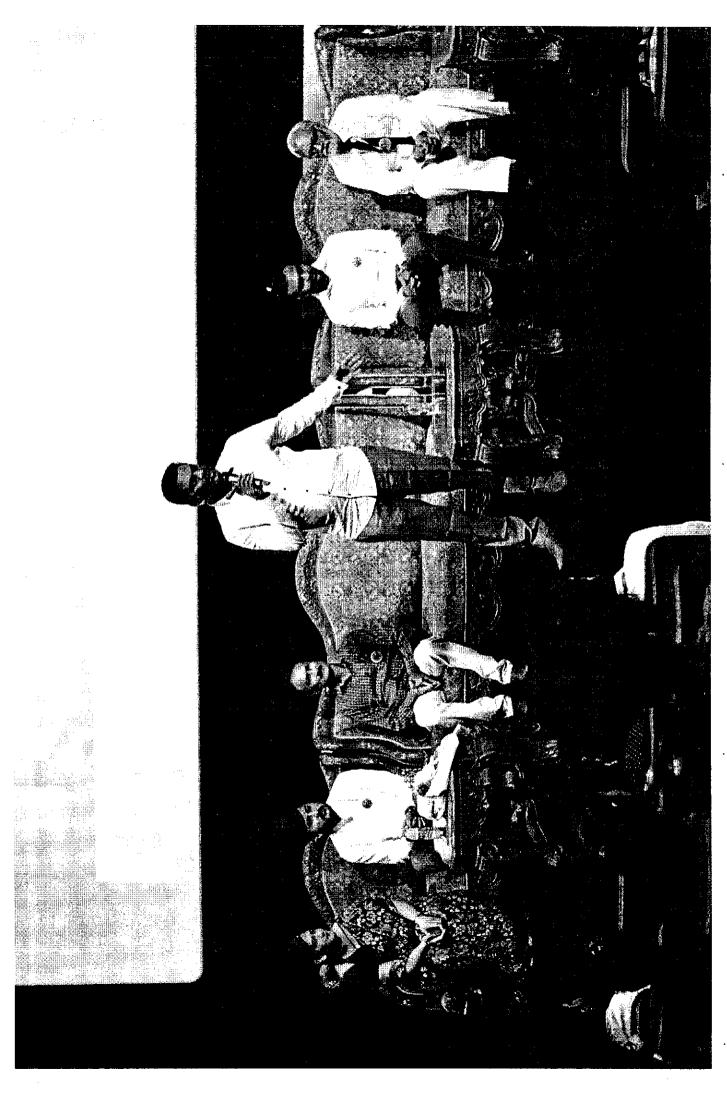
Our sponsors were extremely hobie, superclude our cause of providing a startory to the gune to express their ideas. We are indeed grateful for all the support financially with a some or contradery.

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HUSTLING ASPIRANTS





T T T T DATE: 29-02-2020

TIME: 2 PM TO 4 PM

A PRODICY OF SPEYAS INSTITUTE OF ENGINEERING AND TECHNOLOGY



FOUNDER:

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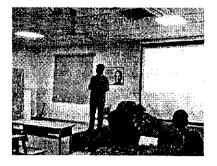


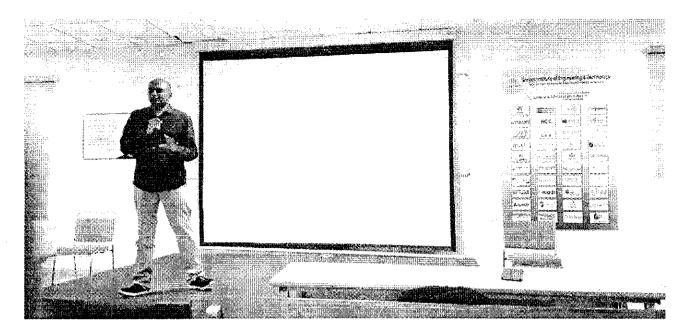


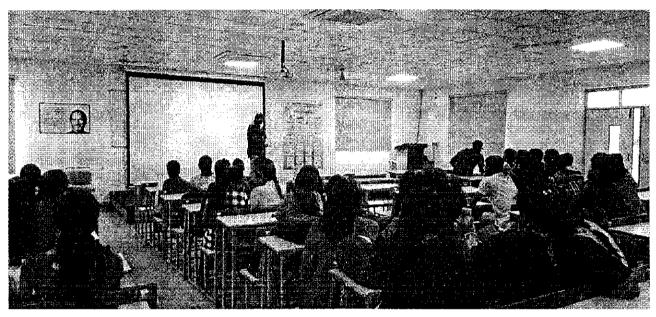


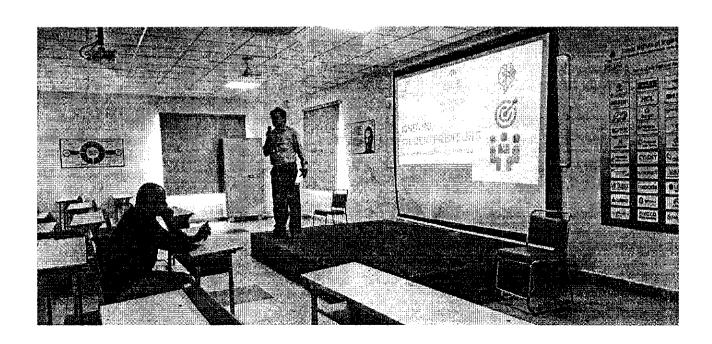












mvvprasad kantipudi <mvvprasad@sreyas.ac.in>

Feb 28, 2020, 11:23 AM

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to Hriday, surekha, principal, me

Dear Sir/Madam

Greetings from Sreyas!

As per our discussion, here we are sharing the planned entrepreneurs Talk s in upcoming Saturdays for your kind perusal.

Here, im requesting respective incharges to coordinates the planned events with help of student coordinator. (Dileep Seshu)

Thanks with Anticipation....Dr.Prasad.

----- Forwarded message -----

From: Dileep Seshu < dileepbseshu@gmail.com>

Date: Fri, 28 Feb 2020, 09:18 Subject: EVENT DETAILS To: mvvprasad@sreyas.ac.in

Good Morning sir,

Dileep Seshu of ECE - 3D sending you this email to inform you about the event details and event posters.

1.IGNITING STUDENTPRENEURS

The second edition of igniting studentpreneurs is a flagship event that has been conducted by the Sreyas EDC.

This year we have a speaker named RAVITEJA GUPTA, Founder and CEO, Bro media works, will be giving the insightful words and talks on the emerging trends in entrepreneurship.

(you can find the profile details at the end of the mail).

2.CAMPUS STARTUPS NEED OF THE HOUR

This is a event which mainly conducted to the faculty members in order to update with the recent and advancement of the entrepreneurship and startup culture among the students in colleges by RAJINIKANTH,Incubation manager,VHUB. (you can find the profile details at the end of the mail).

Thank you, B.Dileep Seshu.

Profile of Ravi Teja Gupta

Ravi Teja Gupta

1. Founder and CEO of Bro Media Works which is into providing Growth hacking strategies services exclusively to startups.

Thought Leader in Innovation, startups and Entrepreneurship.

2. Building India's startup ecosystem with the brand name "The startup works". Impacted 1000+ startups as of now by building industry specific communities with unschool concept of learning.

Im inspired by Super30, i want to create 30 unicorn startups out of all my mentees. Built Cofounder finding platform FindMyCofounders.com to increase success ratio of startup in India from current situation of less than 10% to make it more than 20% by the end of the year 2020.

3. To empower students and make them industry ready, building communities with unschool concept of learning with brand name "The students club". We are giving personalised career counselling with the help of industry experts and psychologists to top colleges and universities aspiring students with the brand name "Best Career Counsellors".

Leadership:

- 1. TEDx campus leader
- 2. TiE idea coach
- 3. Shiksha Contributor level 9

Promoted Innovation and Entrepreneurship in:

- 1. IBS Hyderabad Business school
- 2. Annapurna International School of Film and Media
- 3. BVRIT
- 4. CMR Technical Campus
- 5. MLR Institute of Technology
- 6. Kakatiya sandbox, Deshpande foundation

Achievements:

- 1. Achieved Top 200 startups certificate from Startup India.
- 2. Selected for the bootcamp of TSIC Telangana State Innovation Cell of Government of Telangana which is lead by CIO Chief Innovation Officer Mr. Phanindra Sama sir CoFounder of RedBus
- 3. I stand for the nation Sreshta seva puraskar award 2019
- 4. Ambitions award for education excellence 2020
- 5. Pride of Hyderabad Business icon awards 2020

I worked for:

- 1. Paytm payments bank as Zonal Manager.
- 2. Practo (Asia's No.1 Healthcare IT company)
- 3. Shiksha (education portal of Naukri group. Infoedge parent company)

My education:

- 1. ISB certified in Digital Marketing from Google Digital Unlocked
- 2. PGPM Brand Management from MICA (Mudra Institute of Communications Ahmedabad) in collaboration with the leading media group Viacom18
- 3. EDP (Entrepreneurship Development Program) from TBI (Technology Business Incubator) of UOH (University Of Hyderabad) in collaboration with TEZ (The Entrepreneur Zone)

Goals:

- 1. Build India's no.1 healthcare digital ecosystem Prewento. Make India as healthy India by promoting preventive healthcare using technology.
- Become a successful seed investor.
- 3. Be happy and spread happiness.

Current status:

- 1. Getting mentored by RICH Research and Innovation Circle of Hyderabad
- 2. Looking for good SaaS products to convert startup ideas into products
- 3. Looking for good startup ideas to invest seed investments with the brand name "GuptaJi invests".

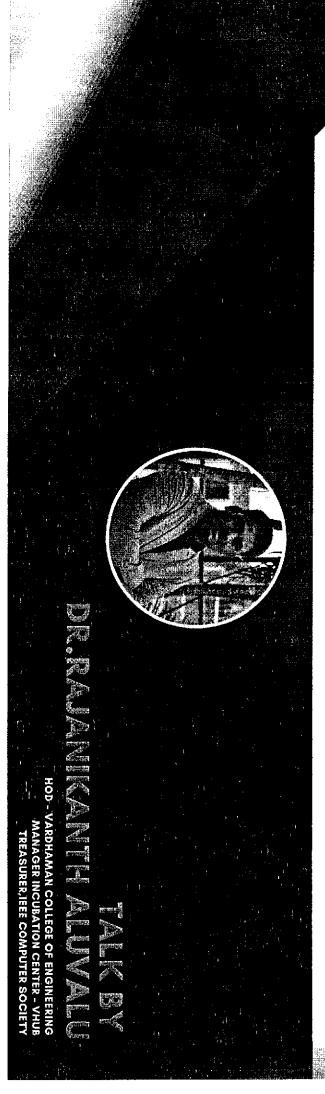








NEED OF THE HOUR















NEED OF THE HOUR

TALK BY DR.RAJANIKANTH ALUVALU

DATE: 07 MARCH 2020 VENUE: SREYAS AUDITORIUM

REPORT ON SECOND EDITION OF IGNITING STUDENTPRENEURS

Τo

The Principal,

SIET,

Nagole, Hyderabad.

Subject: Report on Second Edition of Igniting Studentpreneurs-reg.

With the success of first edition of Studentpreneurs, Sreyas EDC has conducted "The Second Edition of Igniting Studentpreneurs" on 29-02-2020. The cheif speaker for this event is Ravi Teja Gupta, Founder and CEO at Bro Media Works and findmycofounders.com.

The event started with the inaugural speech by Mr.Sainath kasuba, Coordinator - Sreyas Entrepreneurship Cell.He spoke about the emergence of the entrepreneurship and startup culture in sreyas and spoke about some college startup's which are currently excelling in their own fields and sectors.

Our guest speaker Mr.Ravi Teja Gupta started his talk by sharing the few insights about his company and went on to share the emerging trends in the startup ecosystem and the impact of student entrepreneurs in the startup ecosystem among India and also foreign.He also explained how he got connected with the REDBUS CEO,Mr.Phanindra Sama and how can a mentor will help one person to reach higher standards.

The event go ended by felicitation by Dr.Kantipudi M.V.V.Prasad and as a sreyas go green campaign our student coordinator Mr.Dileep Seshu presented the sapling to the guest.

-Some of the photographs are attached in below document-

Thank you,

Yours faithfully, B.Dileep Seshu, 17VE1A04J6, ECE-3D, Student Coordinator, Sreyas Entrepreneurship Cell.





HUSTLING ASPIRANTS SREYAS EDC

Section 1.1



TAMESTON HAND







A PRODIGY OF SREYAS INSTITUTE OF FACING AND TECHNOLOGY



To The Principal, Sreyas Institute of Engineering & Technology, Beside Indu Arnaya, GSI, Bandlaguda, Nagole, Hyderabad, Telangana.

From:

Department of Electronics & Communication, Sreyas Institute of Engineering & Technology, Beside Indu Arnaya, GSI, Bandlaguda, Nagole, Hyderabad, Telangana.

Dear Sir.

Our ECE Department is organizing an expert talk on "Campus Start-ups need of the hour" on 00th March 2020 for Sreyas faculty members of all disciplines. The primary objective of this talk is to prepare the faculty members for the 21st Entrepreneurship Challenges by incorporating the experiential entrepreneurship pedagogy in curricula and to transform entrepreneurship curriculum to build core entrepreneurial skills.

In this regard, here I request you to provide all the necessary financial, administrative and logistic support to make this event as a grand success.

Details:

Total No of Expected Participants: 120+

Collaborating Departments: ECE, CSE, Mechanical, Civil

Board Room & Auditorium

Bus Transportation is required (In case of delay)

Time Slot: 02:00 PM to 04:00 PM

Event Poster Attached.

Event Co-Ordinator: Dr.Kantipudi MVV Prasad

Head of the Department (ECE)

Head of the Department (CSE)

Head of the Department (ME)

Head of the Department (Civil)

b lalozis

EDC ECE Co-Ordinator

Transport Incahrge

Aswesh

Principal

IQAC Director

Vice Chairman

Motivational Session on - GOAL SETTING by Prof. M L Saikumar

Great Motivational speaker Prof. ML Saikumar was invited to Sreyas Institute of Engineering and Technology on 7th March 2020 to deliver a lecture on **Goal Setting** for the benefit of our 2nd Mechanical, Civil, ECE and Computer Science Engineering students.

Prof. M L Sai Kumar covered all concepts related to different sets /groups of people not only working in an organization but also in general. He elaborated the session by taking examples like safety & security, Engineering & technology, some case study, some videos & audios etc. to improve the inner strengths, quality of work & product for achieving the organization goal.

More than 200 odd students got benefited by the session. Principal Dr. Suresh Akella, Vice Chairman Mr. Hriday Reddy felicitated Prof ML Saikumar and thanked him for interacting with the students and appreciated Prof. ML Saikumar for his yeoman service to the society.

