



NARAYANA

Professional Colleges – Medical, Dental, Nursing, Pharmacy & Physiotherapy



INSTITUTION'S INNOVATION COUNCIL

(Ministry of Education Initiative)

Ideathon

Nationwide Idea Solution Competition for Existing Healthcare Problems

Institute Innovation Council – Self Driven Activity

<https://youtu.be/5z8xXzjQoL0>

Healthcare Problems to be Addressed

1. Reasons for increase in suicidal tendencies among adolescents and youngsters? Is it societal/peer pressure or individuals stress handling is poor in this current era?
2. Child abuse: In-spite of POSCO act and other similar acts against child abuses, incidence is high in India. What are ways and means to reduce the child abuse at individual level, health care level and at government level.
3. Compound communicated fracture with severe bone loss are still difficult to treat; innovative ideas are welcome.
4. Skin blisters are common problem encountered routinely by a surgeon, while fixing gauze pad to skin with adhesive plaster. Any Ideas to address this issue?
5. Nosocomial infections – how to reduce effectively with the aid of medical devices/methods/tools/apps.
6. Non-invasive screening of anemia or diabetes
7. TB control activities are in operation in India since 1962. But even today every 3 minutes 2 persons are dying from TB. What measures would you suggest to control TB in India?
8. Strategies to minimize the multi-drug resistant microorganisms in hospital setup

Important Dates

- Last Date for Idea (abstract) Submission – **Nov. 7, 2021**
- Presentation of Selected Ideas (15 min) – **Nov. 11 & 12th , 2021**
- Award for 3 winning Ideas and presentation – **Nov. 17th , 2021**

Abstract Guidelines

- Abstract to be themed around one of the eight stated problems
- All abstracts to be submitted by Nov. 7, 2021 to **drvshiva@narayanamedicalcollege.com** with subject: Ideathon – abstract submission
- Abstract – Max. word limit – 350; Font – Times New Roman; Size – 14 for title & 12 for abstract.

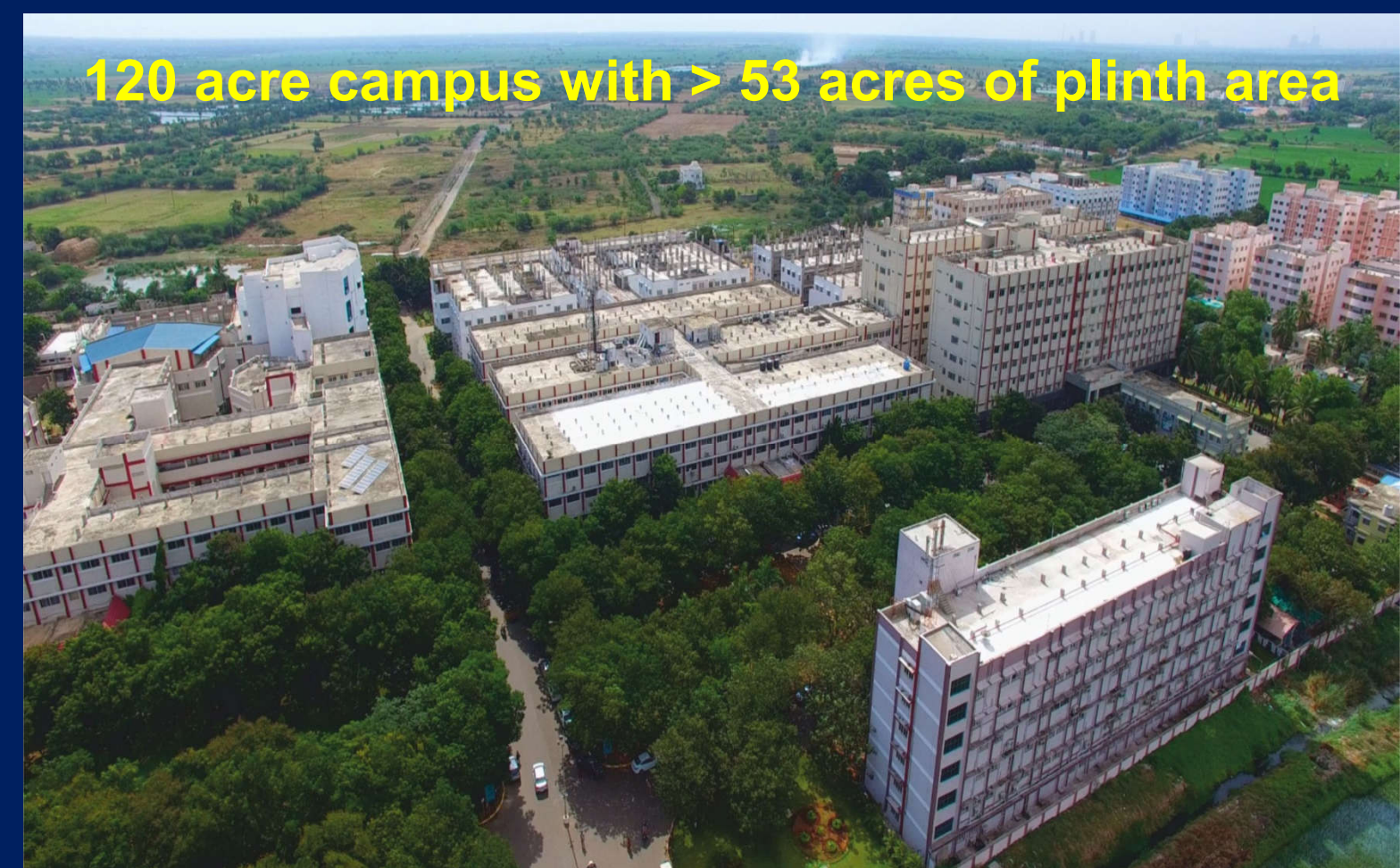
Narayana Medical College

Narayana Medical College (NMC), affiliated to Dr. NTR University of Health Sciences, Vijayawada, AP; **is a self – financing institution** established in 1999; and managed by Narayana Educational Society, Nellore. The founder chairperson **Dr. P. Narayana** is a gold medalist in M.Sc. and holds doctorate in Statistics from Sri Venkateswara University, Tirupati, AP. The college campus is spread over a large area of **120 acres**. It is having more than **23,00,000** square feet of a built-up area with all required modern amenities and accredited with NAAC & NABL. The vision of the institution is - to excel in value-based medical education health care, research and technology of global standards enrich with quality contributing to national development. The institution steadily progressing with well-structured mission to attain the stated vision.

NMC widened its horizon during the past 20 years and is presently offering **250 medical graduates, 154 postgraduate (PG)** and **20 super-speciality seats**. The college offers an undergraduate program–MBBS; 27 PG programs includes super speciality courses in M.Ch. (Surgical Gastroenterology, Genito-urinary surgery) and D.M (Cardiology, Medical Gastro-enterology, Neurology, Endocrinology, Nephrology).

Narayana Translational Research & Incubation Center (NTRIC)

DSIR recognized NTRIC is established in a plinth area of 16,000 sq.ft. It includes Clinical Research Division, Conference Room, four Biosafety level II clean rooms with laminar air flow type II- A in each room to carry out Stem Cell, Molecular biology and Genetic studies. A central Laboratory exists with state of art instruments such as Real- Time PCR, Ultra High Performance Liquid Chromatography (UHPLC), Flow Cytometer, Inverted Fluorescence Microscope, Nanodrop and Microbiology incubator and Laminar hood. As well equipped with necessary equipment's including cooling centrifuges, refrigerators and freezers (-20 & -80 deg. C), Gel-documentation system and an IR Camera. Outcome of various research activities carried out in this center were published in both national and international reputed journals. As well center includes an Incubation center to promote Invention, Innovation and Entrepreneurship among students and faculties.



Award Ceremony of Ideathon

on Wednesday, 17th November, 2021; 9 am to 11 am

at Grays Lecture Hall, Narayana Medical College, Nellore, AP

Organizing Committee

Dr. Surya Prakasa Rao; IIC – President & Dean, Narayana Medical College

Dr. Sivakumar Vijayaraghavalu – IIC – Convener & Head, NTRIC

Dr. E. Ananda Reddy, IQAC Coordinator, Professor & Head, Dept. of Psychiatry

Dr. Mahidhar Reddy, Medical Education Unit Coordinator, Professor & Head, Dept. of
General Surgery

Dr. Lavanya, Professor & Head, Dept. of Gynecology

For further details and queries contact

**Dr. Sivakumar Vijayaraghavalu, IIC – Convener,
Prof. & Head, NTRIC, Narayana Medical College, Nellore, AP,
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INSTITUTION'S INNOVATION COUNCIL

(Ministry of Education Initiative)

Circular - Reminder

Institute Innovation Council

Cordially invites you for the

Ideathon

Nationwide Idea Solution Competition for Existing Healthcare Problems

Award Ceremony

*Best 3 ideas will be awarded
Winners will present their ideas*

*at Gray's Lecutre Hall, 12 pm – 1 pm;
Wednesday, November 17, 2021*

Dr. Sivakumar Vijayaraghavalu,
IIC – Convener.

Dr. SP Rao,
IIC – President and Dean, NMC.

PROGRAMME

Welcome Address	Dr. Sivakumar Vijayaraghavalu <i>IIC Convener</i>
Presidential Address	Dr. Surya Prakasa Rao, <i>IIC president and Dean, Narayana Medical College</i>
Keynote Address	1.Dr. Ajay, <i>Principal, Narayana Dental College</i> 2.Dr. E. Ananda Reddy, <i>IQAC Coordinator</i> 3.Dr. Mahidhar Reddy, <i>Medical Education Unit Coordinator</i>
Selected Idea Presentation	1.3rd Prize Winning Idea – Dr. Syed Farooque Ali, <i>1st Year, Postgraduate, Department of Endocrinology, Narayana Medical College, Nellore, AP.</i> 2. 2nd Prize Winning Idea – Ms. Yutika Jaishankar, <i>1st year MBBS, Sri Ramachandra Institute of Higher Education and Research (Deemed to be University), Porur, Chennai.</i> 3. 1st Prize winning Idea P.V.Jahnavi , Dr. K.R.Padma (Mentor) <i>Sri Padmavati Mahila Visvavidyalayam (Women’s University)-Tirupati-AP, India</i>
Prize Distribution	Dr. SP Rao, Dr. E. Ananda Reddy & Dr. Mahidhar Reddy
Vote of Thanks	Dr. Sivakumar Vijayaraghavalu
Group Photo Session	

Ideathon: Solutions for Stated Healthcare Problems Minutes of the meeting:

The Nationwide Idea Competition- Ideathon; Solutions for the stated Healthcare Problems was conducted to select the best ideas and solutions for the healthcare problems from different medical college students around the nation.

The award ceremony was presided by Dr. SP Rao. It was convened and moderated by Dr. Sivakumar Vijayaraghavalu, IIC-Convenor, Narayana Translational Research and Incubation Centre (NTRIC). The program was conducted on November 17, 2021; 12 p.m. in Grays Lecture Hall, Narayana Medical College, Nellore 524003, Andhra Pradesh. The staff and student members of all the Narayana Professional colleges and the participants from other colleges were present in the event.

IIC – Convenor delivered the welcome address; as follows

Good after noon and greetings to one and all; I Dr. Sivakumar Vijayaraghavalu, IIC – convener, welcome you all for this Ideathon award ceremony on behalf of our honorable IIC – president and Dean, Medical College, Dr. SP Rao sir.

Ideathon, – it is a nationwide idea solution competition for healthcare problems. It is of its kind. Because, idea competitions in the name of hackathons are regularly conducted by engineering institutions; but not in medical institution. Hence, we initiated this Ideathon and this event could serve as seed to conduct competitions like this in our medical institution and elsewhere. We sincerely thank our honorable IIC president for being a master mind behind this great initiative – thanks sir.

Lot of background work was done for this competition; its noteworthy to highlight the efforts – we started idea storming about this program last month; October 12th; our IIC president invited all the HODs of medical college for a meeting and explained about the idea and requested them to state a persisting healthcare problem. We had a full support for this event from Medical Superintendent Dr. Seshama Madam. We received lot of healthcare problems from that 8 problems were selected by highly qualified and distinguished physicians of our institution. Then the selected problems were circulated to all the medical colleges in the nation by October 28th . Then we received the abstracts by Nov. 7th and it was scrutinized and meritoriously three best ideas were selected and informed the contestants. We are celebrating today the month long effort.

Our sincere and heartfelt thanks to IQAC coordinator, professor and Head of Psychiatry – Dr. Anada Reddy and Medical education coordinator; Prof. and Head General Surgery – Dr. Mahidhar Reddy for their help from the time of idea inception and all the stages I just mentioned. Despite their busy schedule they were always available and shared their expertise; without you both this event would not have happened – thanks to both of you.

For the participants from outside our institution; would like to inform that; in entire Andhra Pradesh we are the only medical college to have IIC approved by Ministry of Education's Innovation Cell. It's a joint effort by all five colleges within the campus – Medical, Dental, Nursing, Pharmacy and Physiotherapy. I take privilege to thank each Head – Medical – Dr. SP Rao sir, Dental – Dr. Ajay, Nursing – Dr. Indira; Pharmacy – Dr. Harinatha Baba and Physiotherapy – Dr. Tirupathi.

IIC Convener thanked all the participants from different medical institutions and then invited Dr. SP Rao, IIC-President and Dean, Narayana Medical College; Dr. Ajay, Principal, Narayana Dental College; Dr. Mahidhar Reddy, medical education coordinator, professor and head of general surgery and IQAC Coordinator, Dr. E. Ananda Reddy to the dias. After this welcome note, he invited honourable IIC-President and Dean, Dr. SP Rao to address the gathering.

IIC-president greeted and welcomed all the attendees and the participants. He explained the background behind Ideathon concept. He stated that it has been initiated to stimulate thinking and encourage young minds to explore them out of the textbook and journals. He also stated that the responses are not so encouraging due to the education system that made the students stick to the books. He continued with history of India's health system and its state of improvement from pre independence, along with that he also pointed the major health issues like diabetes, infectious diseases, and child health that the country is facing. He also explained how Ideathon can help in solving these health aspects. He concluded his speech by congratulating all the participants, especially the winners and suggested them to work with mentors to transform their ideas into reality, which can help them get a patent for that particular idea.

Dental college Principal Dr. Ajay appreciated the IIC – President and - Convenor for the efforts taken to establish IIC. He further stated Ideathon has come up for youngsters to think out of the box and not to have standard solutions or textbook solutions for the healthcare problems. He congratulated the participants and the winners.

Professor & Head, General Surgery, Dr. Mahidhar Reddy, acknowledged both the IIC-President and IIC-Convenor as they are the pillars behind the IIC in the institution. He described how this IIC and the competition like Ideathon could flourish the Narayana Medical College in coming decades. He also narrated - how the idea of wheel changed the world, similarly how the idea of medicine started. He further stated the importance of ideas in the life's of famous entrepreneurs like Elon Musk and Mark Zuckerberg and explained the background of the Ideathon, why it has been conducted and how Narayana Medical College are working on this to nurture the future. He also encouraged the students to take part in the upcoming competitions and help themselves to grow along with coming generations.

IQAC Coordinator, Dr. Ananda Reddy, appreciated all the participants who have come up with new ideas from different medical colleges.

He encouraged the students stating failure is the stepping stone for the success and advised the participants to not get disheartened for not getting prizes and motivated them to participate with more enthusiasm and new ideas in upcoming competitions. He thanked the IIC organizers for giving the opportunity to be a part of the event.

IIC – convenor, Dr. Sivakumar, requested the IIC-President, and other dignitaries on the dais to give the mementos and certificates to the winners. He announced the top three winners by displaying their abstracts on the screen. Each of the winners described the abstract/solution for the healthcare problems and received the award from the dignitaries.

1st Prize- Ms. Jhanavi, M.Sc, Biotechnology, Sri Padmavati Mahila Visvavidyalayam, Tirupati, Andhra Pradesh.

2nd Prize- Ms. Yuthika, 1st year, MBBS, Sri Ramachandra Institute of Higher Education and Research, Chennai, Tamil Nadu.

3rd Prize-Dr. Farooque Ali, PG 1st year, Department of Endocrinology, Narayana Medical College, Nellore, Andhra Pradesh.

Followed by prize distribution, the event was concluded with a vote of thanks by IIC-Convenor and group photos were taken.

Ideathon – Nationwide Competition – Award Winning Ideas

1st Prize:

Skin blisters are common problem encountered routinely by a surgeon, while fixing gauze pad to skin with adhesive plaster. Any Ideas to address this issue?

Title - Eco-friendly and Biodegradable Bandages Made with Jackfruit

P.V.Jahnavi , Dr. K.R.Padma (Mentor)

Sri Padmavati Mahila Visvavidyalayam (Women's University)-Tirupati-AP, India

Abstract

In general, skin blisters are bubbles that pop up when fluid collects in pockets under the top layer of our skin. It can be filled with pus, blood or the clear, watery part of our blood called serum, mostly shaped like circles. Depending on the cause, blister could itch or hurt a lot or a little. Generally, for the treatment of blister we put a loose bandage or use padding. In addition to this, these bandages are made from plastic which is more harmful to the environment and takes years to degrade. Our main idea is to create a band -aid from fruit waste. As cellulose is a strong sugar molecule that exists naturally in plants and once extracted it can be molded into everyday products. These eco-friendly bandages can be made with jackfruit which creates a soft antibacterial hydrogel. The benefit of using hydrogel based bandages is that it's moist so it would prevent the wound from drying up with skin conditions like eczema and they are both environmental ally and medically beneficial and hydrogels may also cool the wound which is helpful in alleviating pain. The jackfruit has diverse medicinal uses especially anti-oxidant, anti-inflammatory, anti-microbial, anti-cancer and anti-fungal activity. Antibacterial bandages are non -toxic and rehydrate the wound bed. This technology not only reduces fruit waste but also aids to transform more than just Jackfruits into useful hydrogels making it a promising solution in near future.

Keywords: Cellulose, Fruit waste, Hydrogel, Eco-friendly, Jackfruit

2nd Prize:

Compound communicated fracture with severe bone loss are still difficult to treat; innovative ideas are welcome.

Yutika Jaishankar Gujula, 1st year MBBS student, Sri Ramachandra Institute of Higher Education and Research (Deemed to be University), Porur, Chennai.

Abstract -

Treatment of a compound comminuted fracture has to prioritize two things

Stabilization of adjacent bone

Enabling of fast regeneration of bone that was lost

The existing methods of treatment include amputation (of limb) if there has been extensive necrosis/damage to peripheral arteries or the more popular method of stabilization using pins (less severe cases). The disadvantages of using pins include infections (more common in percutaneous pinning), metal irritation or severe pain at the location of insertion.

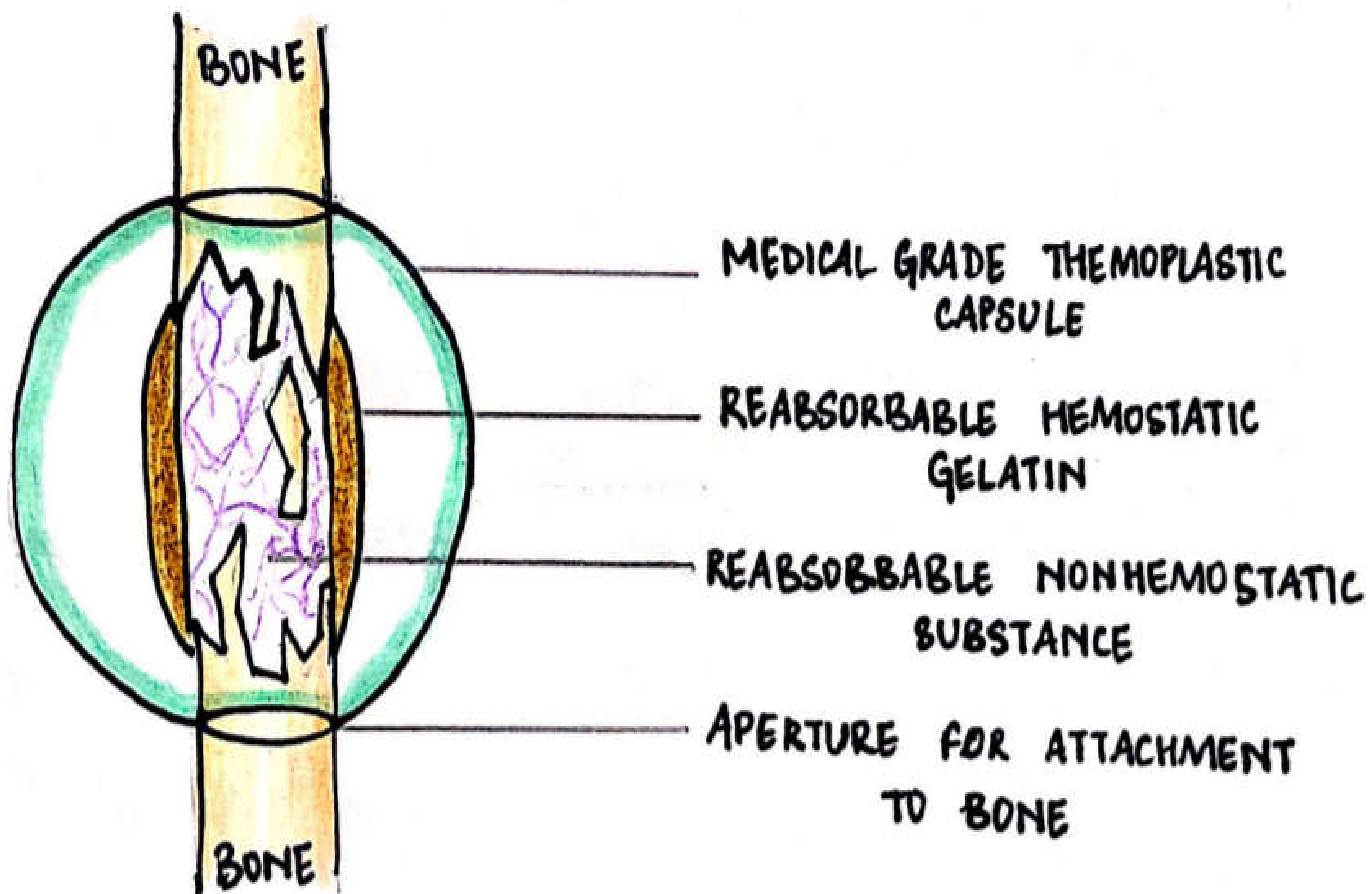
I have come up with a creative, futuristic solution to attempt to solve this problem. After the adjacent bones have been aligned manually by the surgeon after appropriate debridement; **medical-grade thermoplastics** like polycarbonate, polyethylene or polypropylene are molded into a **spherical shape** leaving open ends on either side where the adjacent, preexisting bone will fit in. This will serve as an **outer capsule** to stabilize the healing bone (similar to a hard callus). Its spherical shape will also make it easier to **distribute the pressure** being exerted on it (when the limb is being used).

In the space where the bone was lost, we can create a cylindrical structure within which will be present, **reticular filaments**, to enable faster healing. This will increase the surface area for the attachment of the osteoblast cells. Both the cylindrical structure as well as the reticulate filaments will be made of a reabsorbable material that will disintegrate when left in situ. The **outer cylinder** can be made with materials like **sterile reabsorbable hemostatic gelatin** e.g. Cutanplast but the inner reticulate filaments **must not be hemostatic**.

We can also additionally obtain **stem cells**, differentiate them into osteoblasts and manually implant them into the aforementioned reticulum. This method can be used to help treat very severe cases.

This structure will enable good blood flow to enhance healing, increase surface area for regeneration of bone, and at the same time, stabilize the fractured bone in the right orientation.

Below is a diagram illustrates the idea –



3rd Prize:

Nosocomial infections – how to reduce effectively with the aid of medical devices/methods/tools/apps.

Dr. Syed Farooque Ali, 1st Year, Postgraduate, Department of Endocrinology, Narayana Medical College, Nellore, AP.

1. **SONIC software** (Surveillance of Nosocomial Infection in Critical care) a fully automated electronic surveillance software for monitoring and collecting data of Nosocomial Infections in critical care settings of hospital should be developed and managed by infection prevention team.

2. In this era of social media, **Short videos** regarding procedures, sepsis bundle approach, catheter insertion and catheter site care to prevent nosocomial infections should be circulated among doctors.

3. Monthly once **CPC (Clinical pharmacology Microbiology) meet** of difficult/ interesting cases.

4. Sharing is caring: online webinars, workshop or Telemedicine with institutions having Infectious Disease department should be held every 3 months once.

5. Procedures (catheter insertion, central line placement etc) should be made part of internal assessment in UG and PG studies, rather than restricting it to logbooks.

6. Rewards: Health care workers should be rewarded for their precautionary measures and activities in preventing Nosocomial infection in Hospital.



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**IIC President & Dean
NMCH, Dr. SP Rao**



**IIC Convener & Head,
NTRIC, Dr. Sivakumar, V.**



**Dr. Ajay, Principal
Narayana Dental College**



**IQAC Coordinator
Dr. E. Ananda
Reddy**



**Medical education
coordinator,
Dr. Mahidhar Reddy.**



**IIC staff & student members
and participants**



**Presentation by
Ms. Jhanavi,
1st Prize winner**



**Presentation by
Yutika Jaishankar
2nd Prize winner**



**Presentation by
Dr. Farooque Ali
3rd Prize winner**

PHOTO-1



IDEATHON

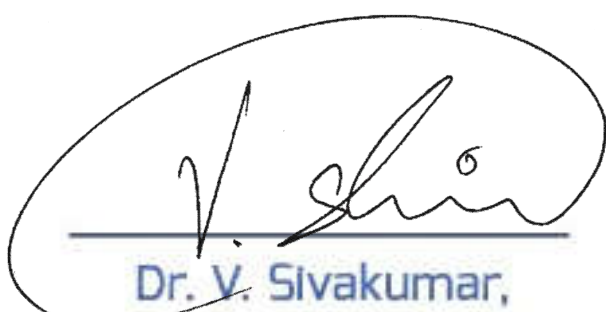
Nationwide Idea Solution Competition for Existing Healthcare Problems.
Institute Innovation Council – Self Driven Activity, November 17, 2021

CERTIFICATE OF ACHIEVEMENT


THIS CERTIFICATE OF ACHIEVEMENT IS PRESENTED TO

Ms. P.V. Jahnavi

For winning 1st Prize; by presenting the idea entitled
"Eco-friendly and Biodegradable Bandages Made With Jackfruit"
to address skin blisters, a commonly encountered problem by
surgeon while fixing gauze pad to skin with adhesive plaster.



Dr. V. Sivakumar,
IIC - Convener



Dr. S. P. Rao
IIC - President & Dean



IDEATHON

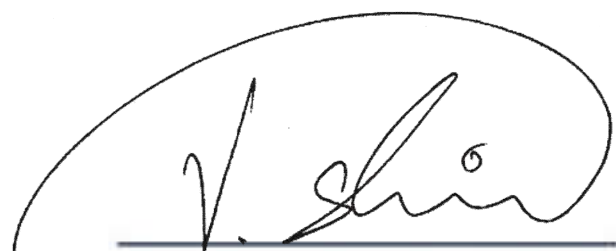
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CERTIFICATE OF ACHIEVEMENT

THIS CERTIFICATE OF ACHIEVEMENT IS PRESENTED TO

Ms. Yutika Jaishankar Gujula

For winning 2nd Prize; by presenting an idea to address
the compound communicated fracture with severe bone loss.


Dr. V. Sivakumar,
IIC - Convener
Dr. S. P. Rao
IIC - President & Dean

IDEATHON

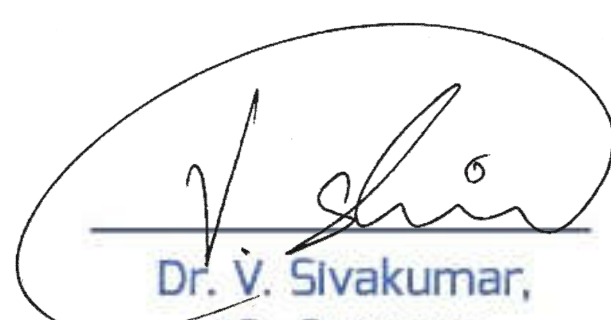
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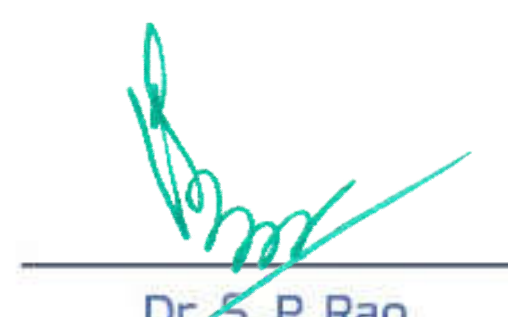
THIS CERTIFICATE OF ACHIEVEMENT IS PRESENTED TO

Dr. Syed Farooque Ali

For winning 3rd Prize; by presenting an idea to
effectively address the Nosocomial infections.



Dr. V. Sivakumar,
IIC - Convener



Dr. S. P. Rao
IIC - President & Dean





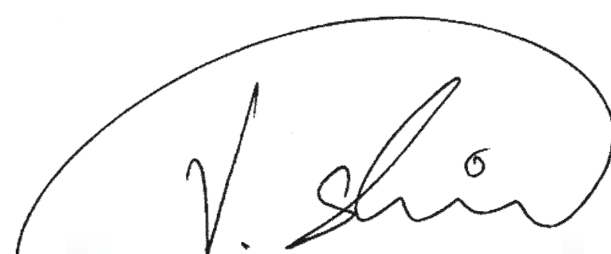
IDEATHON

Nationwide Idea Solution Competition for Existing Healthcare Problems.
Institute Innovation Council – Self Driven Activity, November 17, 2021

CERTIFICATE OF PARTICIPATION

Mr. Durga Prasad Kondeti

For participating in the Ideathon - Nationwide Idea Solution Competition
for Existing Healthcare Problems, conducted by Institute Innovation Council,
Narayana Medical College, on November 17, 2021



Dr. V. Sivakumar,
IIC - Convener



Dr. S. P. Rao
IIC - President & Dean

