



**NARAYANA**

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



**INSTITUTION'S  
INNOVATION  
COUNCIL**

(Ministry of Education Initiative)

# Institution's Innovation Council

*Cordially Invites you for its*

## First Council Meeting

**Dr. SP Rao.**

**President, IIC, Narayana Medical College.**



### CERTIFICATE

This is to certify that

**Narayana Medical College,, Spsr Nellore**

**has established Institution Innovation Council(IIC) as per the norms of Innovation Cell,  
Ministry of Education, Govt. of India during IIC Calendar year 2020-21**

**Prof. Anil D. Sahasrabudhe**  
Chairman, AICTE

**Dr. Abhay Jere**  
CIO, MHRD,  
Innovation Cell

Date : 08-07-2021

Certificate No : 5140

The Institute Innovation Council's first meeting was conducted on August 5, 2021; 3 pm at Gray's Lecture Gallery, Narayana Medical College (NMC), Nellore 524003, Andhra Pradesh. The meeting was presided by Dr. SP Rao, Dean, NMC and IIC – president. It was convened and moderated by Dr. Sivakumar Vijayaraghavalu, IIC-Convenor, NMC. Administrative staff including Dr. Y.V Prabakar, Medical Administrator, NMC, participated.

Dr. Kannan, Innovation Coordinator, shared his experience in finding a medical device that could be helpful in stabilizing the subjects' head while performing dental radiography. The IIC is formed jointly by Narayana professional colleges which includes – Medical, Dental, Nursing, Pharmacy and Physiotherapy. The staff and student members from all these colleges attended the meeting. As well staff and student non-members attended the meeting out of their own interest. The scan copy of duly signed attendance sheet is given below.

Dr. SP Rao started his presidential address by greeting all the IIC members and shared happily that we are the only medical college in Andhra Pradesh to have IIC approved by MoE's Innovation Council. In his talk, he emphasized the importance of Innovation, Invention and Entrepreneurship for the advancement of health care and national development. He further stated that one should be a lifelong learner and his learning and the acquired intelligence should be materialized to an invention that benefits mankind.

Dr. Rao, said that now-a-days the gap between the engineering and medical professionals is narrowing and should be bridged thereby health technologies can advance at its best. He cited the examples where the synergy of medical and engineering minds resulted in medical inventions such as ultrasound, ECG, EEG etc., that saves millions of life globally. He also told that there are large number of diseases prevalent in India for which there is no specific treatment, diagnosis or logistics and so on, so forth. He insisted in developing the cost-effective easily affordable simple diagnostics and therapies.

He highlighted the importance of developing an innovative –culture/ecosystem in the medical campus; thereby the young minds can be inspired and ignited to find novel solutions for health care problems. For the same, he emphasized that we should regularly perform the following activities—

- ❖ Organizing periodic workshops/ seminars/ interactions with entrepreneurs, investors, professionals and create a mentor pool for student innovators – thereby can create an innovative environment.
- ❖ Conduction of various innovation and entrepreneurship-related activities prescribed by Central MIC in time bound fashion.
- ❖ Identifying and rewarding innovations and share success stories.
- ❖ Networking with peers and national entrepreneurship development organizations.
- ❖ Creating an Institution's Innovation portal to highlight innovative projects carried out by institution's faculty and students.

- ❖ Organizing Hackathons, idea competition (Ideathon), mini-challenges.
- ❖ He also told that we should plan an Ideathon for the next quarter (November). He concluded his talk by congratulating the IIC – team.

The IIC – convenor, Dr. Sivakumar, gave a short presentation entitled strategies to promote Innovation, Invention and Entrepreneurship; and mostly re-emphasized the thoughts of Dr. SP Rao. In his talk he described about the activities that to be performed by the IIC and the scores allotted by MoE's IIC for 1. Annual calendar activities (50%), 2. Self-driven activities (30%) and 3. MIC driven activities (20%). He also informed about the resources available — infrastructure, IT support including network, state of art instrumentation in the incubation center for the incubatees. He further told that Incubator management team is formed to support the administrative needs of incubatees, Mentors team formed by including the eminent staff of all the representing professional colleges to mentor the students from their discipline and all together 73 members from the indicated colleges joined to form a single body – the IIC under one single motive to inculcate the research bent of mind in our students and staff.



After the Dr. Sivakumar's presentation; Dr. Kannan shared his success story about his invention; he described the need for an instrument that will immobilize the head while doing radiography for children, geriatrics and disabled patients. He further stated that his invention is simple but highly effective and solves the problem that is persisting in his field. He said that when he searched for a solution; he was shocked to find that no attempts were made to resolve such an issue and that paved the way for his invention. He also re-emphasized many of the statements of IIC-president, Dr. SP Rao and concluded the talk by saying that we can think simple problems and arrive at great health solution for betterment of patients in the clinics. Then, Dr. Sivakumar concluded the meeting by thanking the organization, dean and the participants; which was followed by a photo session. (compiled photo session is given below)



# Institution's Innovation Council

## Strategies to Promote Innovation, Invention & Entrepreneurship

PPTs of the talk by -

Dr. Sivakumar Vijayaraghavalu, Ph.D.

Convenor, IIC, Narayana Medical College.





Narayana Medical College is the only Medical Institution approved by Ministry of Education, Govt. of India having Institute Innovation Council (IIC) in Andhra Pradesh.

## INSTITUTE LIST

Institute Type

College

Select State

Andhra Pradesh

Submit

Institute Course

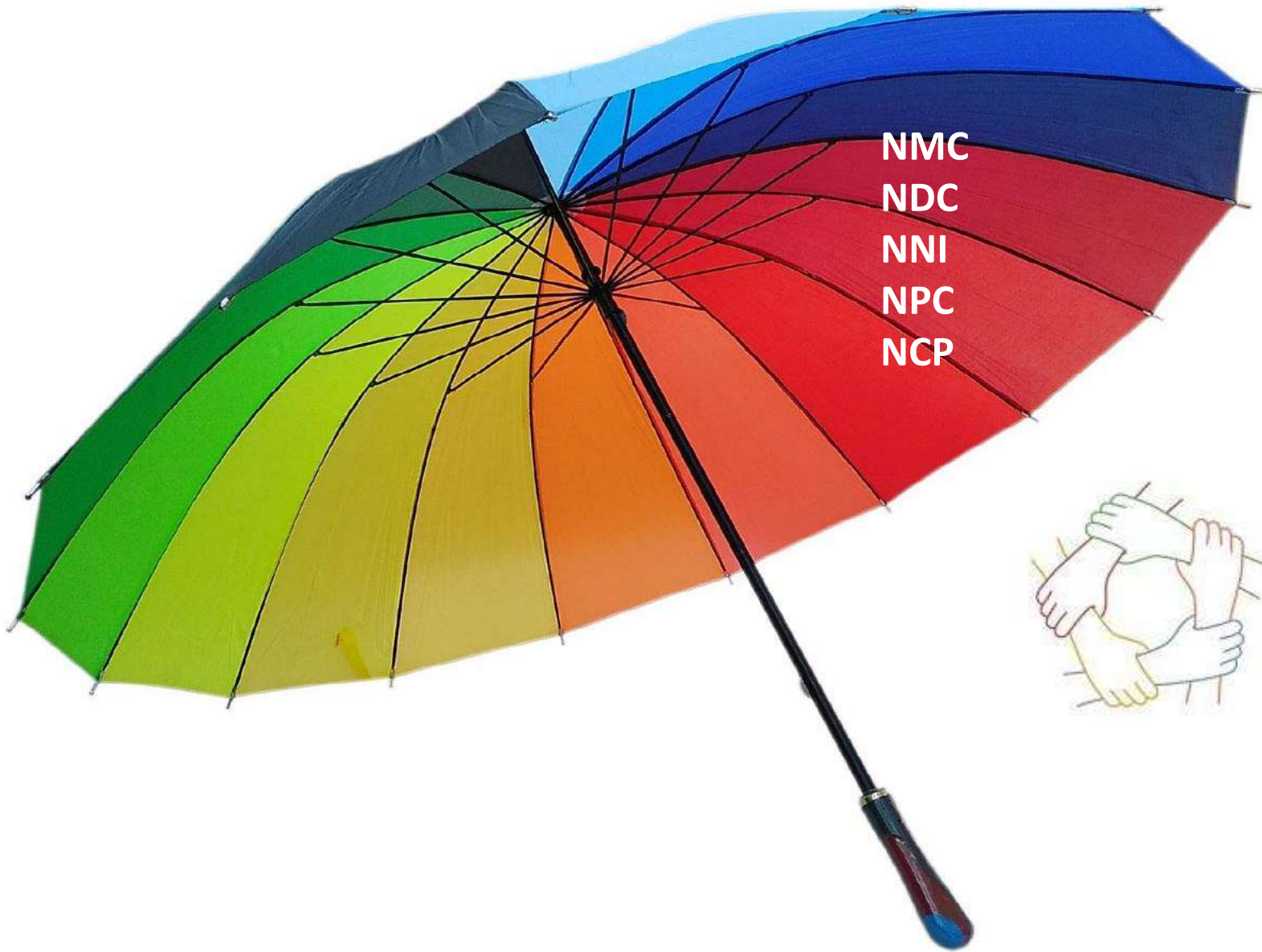
Medical

Select State

Andhra Pradesh

Submit

S.No.	Institute Name	City	State	Zone
1	Vignan's Foundation of Science Technology & Research	Guntur	Andhra Pradesh	South-Central/SCRO
2	St. Joseph Dental College	Eluru	Andhra Pradesh	South-Central/SCRO
3	Narayana Medical College,	Spsr Nellore	Andhra Pradesh	South-Central/SCRO
4	Godavari Institute of Engineering & Technology	RAJAHMUNDRY	Andhra Pradesh	South-Central/SCRO
5	Gandhi Institute of Technology & Management	Visakhapatnam	Andhra Pradesh	South-Central/SCRO
6	G.Pullaiah College of Engineering & Technology	KURNOOL	Andhra Pradesh	South-Central/SCRO
7	Dr. Sudha & Nageswara Rao Inst. of Dental Sciences	KRISHNA	Andhra Pradesh	South-Central/SCRO
8	Audisankara College of Engineering for Women	GUDUR	Andhra Pradesh	South-Central/SCRO



NMC  
NDC  
NNI  
NPC  
NCP

## **IIC – Narayana professional Colleges**

**(Medical, Dental, Nursing, Pharmacy & Physiotherapy)**  
are under one single umbrella – Narayana Educational Society

## **VISION**

- To evolve as an International Centre of Excellence to Promote Invention, Innovation and Entrepreneurship.

## **MISSION**

- To Train, counsel, guide and mentor the students and faculties in performing innovative translational research and setting up of the enterprise.
- To facilitate the scientific interactions between different Departments of Medicine and its allied faculties to generate novel ideas.
- To provide infrastructure and state-of-art technology to test the hypothesis that could result in an invention.
- To encourage innovative collaborative basic research to benefit the community and enabling the industry to produce cost effective equipment and drugs.
- To be a center of excellence that fosters synergy between the academia and the industry that fuels entrepreneurial spirit and inculcates research bent of mind among students to help them to be self reliant and contribute to the nation building.
- To nurture technology and knowledge based ventures through their start-up phase by providing the necessary support and promote entrepreneurship.
- To help medical researchers to obtain intra- and extra-mural research grants to carry out their research and publish the outcome in high impact scientific journals and patent their findings.

# Inauguration of Incubation Centre

*on March 6, 2021*

by



**Dr. T. V. Aditya Chowdary,**

**MBBS, MS, MCh,**

**Surgical gastroenterologist, Gleneagles Global Hospital, Hyderabad**

**&**

**Representative of Bharat Biotech International Ltd., India.**



## Incubation Centre - Inauguration



## Incubation Centre – Inauguration March 6, 2021



## **Incubator Management Team**

- 1. Dr. S. Vijayakumar, Academic Coordinator, Narayana Medical College.**
- 2. Dr. S. P. Rao, Dean, Narayana Medical College.**
- 3. Dr. Y. V. Prabakar, Medical Administrator, Narayana Medical College.**
- 4. Mr. Suresh, Chief Finance Officer, Narayana Medical College.**
- 5. Dr. Sivakumar Vijayaraghavalu, HOD, NTRIC.**
- 6. Mr. Vasanth Kumar, Assistant Prof., NTRIC.**
- 7. Dr. Kannan, Prof. & Head, Dept. of Oral Medicine & Radiology, Narayana Dental College.**
- 8. Dr. Harinadh Baba, Principal, Narayana College of Pharmacy.**
- 9. Mrs. K. Kantha, Head, Dept. of Nursing Research, Narayana Nursing College.**
- 10. Dr. K. Suneel Kumar, Professor, Narayana College of Physiotherapy.**

## **Innovation Mentors**

- 1. Dr. SP Rao, Dean, Narayana Medical College.**
- 2. Dr. Sivakumar Vijayaraghavalu, HOD, NTRIC.**
- 3. Dr. Kannan, Prof. & Head, Dept. of Oral Medicine & Radiology, Narayana Dental College.**
- 4. Dr. K. Ramalingam, Professor, Department of Biochemistry, Coordinator, Central Clinical Laboratory, Narayana Medical College.**
- 5. Dr. Ajay, Principal, Narayana Dental College.**
- 6. Dr. Tirupati, Principal, Narayana College of Physiotherapy.**
- 7. Dr. Indira, Dean, Narayana Nursing College.**




## Resources Available for Incubatees

- Office space
- IT Infrastructure and Support – Desktop computers, operating-software, LAN, wi-fi, printer, scanner, copier, Access control system.
- Archival storage space for Clinical Research Organizations and other incubatees
- Well equipped research laboratory
- Data storage in the incubation center server
- Refrigerators and deep freezers (-20 deg C and -80 deg C) for sample storage
- Internet, telephone, electricity
- Services – general maintenance includes electricity and plumbing; parking and security.
- Furnishing – chairs, tables, cubicles
- Others – board rooms, meeting rooms and co-working space.



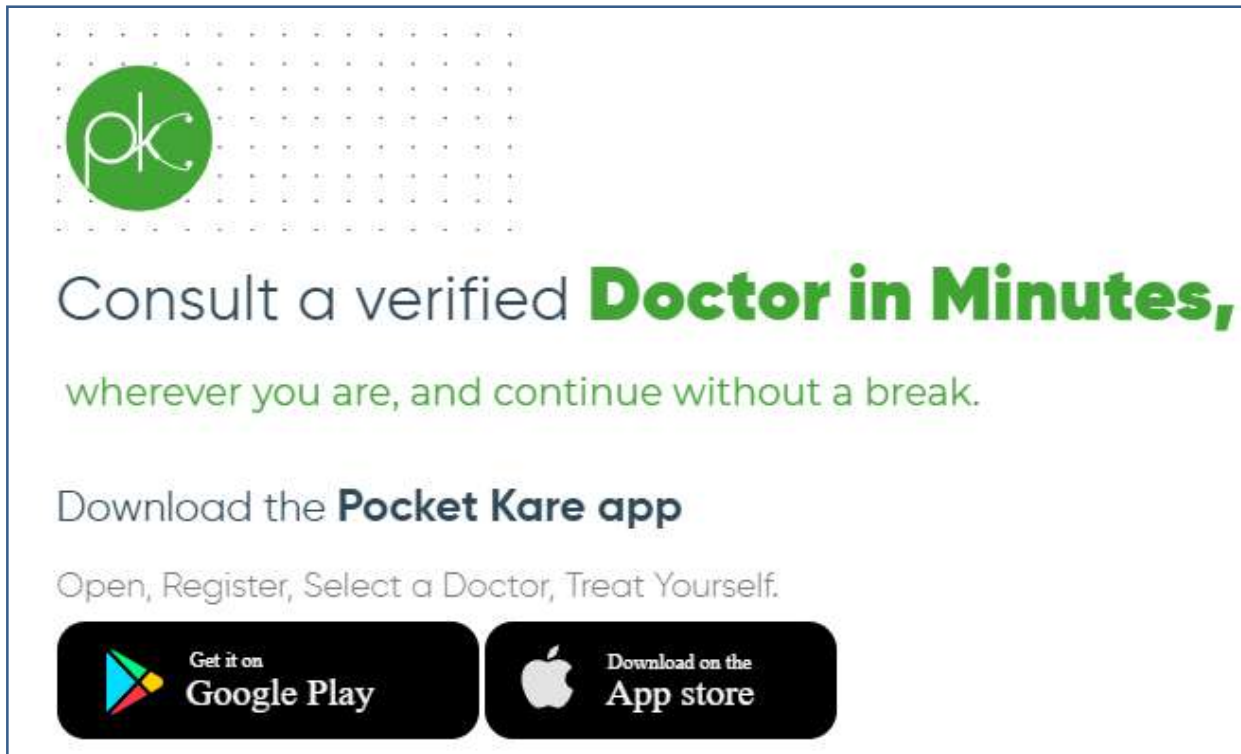
S. No	Name of the Instrument	Model /Make
1	Flow Cytometer	BD FACSCanto II
2	UHPLC	Thermo Scientific Ultimate 3000
3	Atomic Absorption Spectroscopy	Shimadzu
4	Inverted Fluorescence Microscope	Olympus U- LH100HG
5	RT-PCR	Bio-Rad; CFX 96
6	Deep Freezers (-20 deg. C & -80 deg. C )	LG & Terumo penpol DF80U 300L;
7	Laminar Airflow Type II A and CO2 Incubators	Thermo Fisher
8	Gel Documentation Unit	G-Box
9	UV Spectrophotometer	Systronics
10	Nanodrop	Thermo Fisher 2000
11	Microbiology Hood and Incubator	Hitech; Technico
12	Hot Air Oven	Yarko
13	Gel Dryer	Thermocon
14	Trans-illuminator	Lark LIUVT312
15	Flame Photometer	Systronics 129
16	Autoclave	Equitron
17	Muffle Furnace	BTI Biotech
18	Humalyzer	Human 300
19	Densitometer	Systronics
20	Precision Balances	Systronics

## IIC members from Narayana Group of Medical Institutions

S.NO	INSTITUTION	STAFF MEMBERS	STUDENT MEMBERS
1	NARAYANA MEDICAL COLLEGE	10	5
2	NARAYANA DENTAL COLLEGE	6	6
3	NARAYANA COLLEGE OF NURSING	9	12
4	NARAYANA PHARMACY COLLEGE	2	9
5	NARAYANA COLLEGE OF PHYSIOTHERAPY	2	12
	Total	29	44
	Grand Total	73	

## Potential Incubatees

Students of our institution **Dr. Praneeth Koner & Dr. Chakradhar Siddem, -** presented about their innovative idea and start-up company named – Pocket Kare; they developed an app similar to telemedicine app. and they explained about its uniqueness on comparison to other apps available in the market.



The image shows a screenshot of the Pocket Kare app advertisement. At the top left is the logo, a green circle containing the letters 'pk' in white. Below the logo is a grid of small, faint icons. The main text reads: 'Consult a verified **Doctor in Minutes,** wherever you are, and continue without a break.' Below this, it says 'Download the **Pocket Kare app**'. At the bottom, there is a line of text: 'Open, Register, Select a Doctor, Treat Yourself.' and two buttons: 'Get it on Google Play' and 'Download on the App store'.

Consult a verified **Doctor in Minutes,**  
wherever you are, and continue without a break.

Download the **Pocket Kare app**

Open, Register, Select a Doctor, Treat Yourself.

Get it on **Google Play**

Download on the **App store**

## Incubators

### Pre-Incubation & Incubation



Pre Incubation



Incubation



## Semester 1

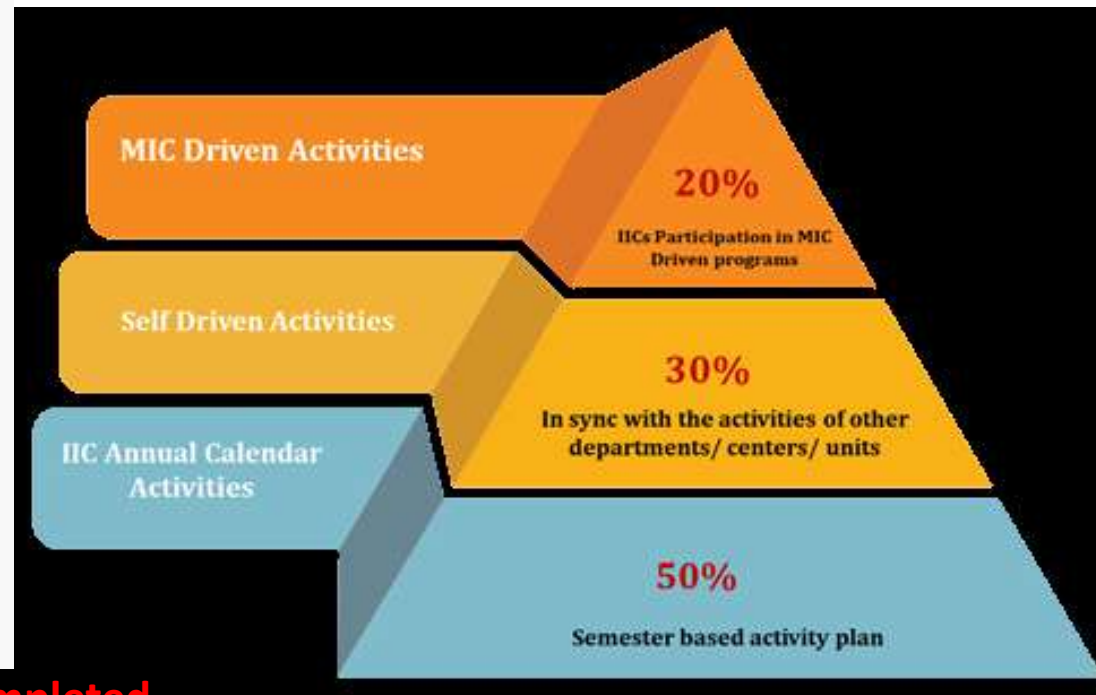
**Quarter 1** Jul - Sep 2020;

**Quarter 2** Oct - Dec 2020

## Semester 2

**Quarter 3** Jan – Mar 2021

**Quarter 4** Apr –Jun 2021



**40 activities - Minimum 18 to be completed**

**Maximum Score / Quarter – 25; Total – 100**



**Weightage of each activity type:**

Activity Type	Weightage in %	Q1	Q2	Q3	Q4	Total Score
IIC Annual Calendar Plan	50%	12.5	12.5	12.5	12.5	50
Self-Driven Activities	30%	7.5	7.5	7.5	7.5	30
MIC Driven Activities	20%	5	5	5	5	20
Total Score	100%	25	25	25	25	100

IIC ID

IC202115596

Narayana Medical College,

Star Ratings

**Effective score range for Star allocation from Quarter 1 to Quarter 4:**

Starting Score range	Ending Score range	Star allocation
>0	24.166	One Star
24.99	34.166	One and a Half Star
34.99	49.166	Two Star
49.99	64.166	Two and a Half Star
64.99	74.166	Three Star
74.99	84.166	Three and a Half Star
84.99	100	Four Star

IIC ID  
IC202115596

Narayana Medical College,

Star Ratings

**Parameters for the calculation of 5th Star:**

S.No	5th star Parameters	Weightage
1	Regional Mentoring Session hosting	5 marks
2	Innovation Ambassador Training Hosting	30 marks
3	Innovation Contest 2020 Participation	12.5
3.1	50- ideas	10 marks
3.2	25 PoCs	10 marks
3.3	15 prototype	10 marks
4	Reward points	50 marks *
5	Finalist of PoC contest	10

# Mail Received from IIC on 2<sup>nd</sup> August, 2021

## Need to complete six activities to be completed prior August 31

Dear IIC President/Convener

This is on the subject cited above it is informed that the last date to conduct and submit the activities of Q3 & Q4 is extended up to 31st August,2021.

Q3 & Q4 is merged and six activities in IIC calendar ,6 activities in self driven section & All MIC driven announced during Q3 &Q4 is required to submit to score full marks in (Q3+Q4)

**Note:**

- (i) If you have conducted some activities in Q1 &Q2 which could not be submitted due to any reason, the same can be submitted during this period.
- (ii) Self driven activities can only be added after the completion of My Council.

PFA the activities submission guidelines for your reference.

--

Regards

Sharad Lamba

Startup Fellow

Innovation Cell | AICTE HQ.

Ministry of Education | Govt. of India

Email- [startupfellow7@aicte-india.org](mailto:startupfellow7@aicte-india.org)

Contact- +91-7906127520

**Quarter 1**
**Thrust Area :Inspiration, Motivation and Ideation**

Sr. No.	Activity	Mandatory/Elective	Download
1	IIC Council formation or upgradation (of existing council) at Institute level. Conduct first council meeting.	Mandatory	<a href="#">Activity Guideline</a>
2	Workshop on "Entrepreneurship and Innovation as Career Opportunity"	Elective	<a href="#">Activity Guideline</a>
3	My Story - Motivational Session by Successful Innovators	Elective	<a href="#">Activity Guideline</a>
4	My Story - Motivational Session by Successful Entrepreneur/Startup founder.	Elective	<a href="#">Activity Guideline</a>
5	Session on Problem Solving and Ideation Workshop	Elective	<a href="#">Activity Guideline</a>
6	Exposure and field visit for problem identification	Elective	<a href="#">Activity Guideline</a>
7	Pitching workshop & linkage of innovators with Innovation Ambassadors.	Elective	<a href="#">Activity Guideline</a>
8	Panel Discussion on Atmanirbhar Bharat- Vocal for Local, Make In India for the world.	Elective	<a href="#">Activity Guideline</a>
9	Orientation Session on National Education Policy (with a focus on Innovation and entrepreneurship)	Mandatory	<a href="#">Activity Guideline</a>

**Quarter 2**
**Thrust Area :Validation and Concept Development**

Sr. No.	Activity	Mandatory/Elective	Download
1	IIC Council Meeting- Review of Q1 progress and Planning for Q2.	Mandatory	<a href="#">Activity Guideline</a>
2	Session on Process of Innovation Development	Elective	<a href="#">Activity Guideline</a>
3	Workshop on Design Thinking, Critical thinking and Innovation Design	Elective	N/A
4	Field/Exposure Visit to Fab lab, Makers Space, Design Centres, City clusters etc.	Elective	<a href="#">Activity Guideline</a>
5	Workshop on Entrepreneurship Development Phases	Elective	<a href="#">Activity Guideline</a>
6	Design Validation through various model of design validation (e.g. Double Diamond Approach)	Elective	<a href="#">Activity Guideline</a>
7	Session on identifying Intellectual Property component at the early stage of Innovation	Elective	<a href="#">Activity Guideline</a>
8	Idea/ PoC pitching & validation and Institute level PoC competition. Submission of Idea/PoC on IIC Portal	Mandatory	<a href="#">Activity Guideline</a>
9	Orientation session for all students & faculties of Institute by Innovation Ambassador	Elective	<a href="#">Activity Guideline</a>
10	Call for paper writing and research report on Innovation or Session on How to write case study/ report on innovation happening at the campus and publish the case studies in the Institute webpage	Elective	<a href="#">Activity Guideline</a>
11	Orientation Session on National Innovation and Startup Policy (NISIP)	Mandatory	<a href="#">Activity Guideline</a>
12	Semester Break : Internship at startup	Elective	<a href="#">Activity Guideline</a>



## Quarter 3

### Thrust Area :Prototype, Design, Process Development for Business Model/ Process/ Services

Sr. No.	Activity	Mandatory/Elective	Download
1	IIC Council Meeting- Review of Q2 progress and Planning for Q3	Mandatory	<a href="#">Activity Guideline</a>
2	Field/Exposure Visit to Incubation Unit/Patent Facilitation Centre/Technology Transfer Centre/ Co-working spaces	Elective	<a href="#">Activity Guideline</a>
3	Workshop on Prototype/Process Design and Development - Prototyping	Elective	<a href="#">Activity Guideline</a>
4	Session/ Workshop on Business Model Canvas (BMC)	Elective	<a href="#">Activity Guideline</a>
5	Business Plan/Prototype Competition to Invite Innovative Business Models from Students	Elective	N/A
6	Session on "How to plan for Start-up and legal & Ethical Steps"	Elective	<a href="#">Activity Guideline</a>
7	Interactive Session/Mentoring Session with "Successful Start-up founders" (Entrepreneurs in Campus)	Elective	<a href="#">Activity Guideline</a>
8	Workshop on Intellectual Property Rights (IPRs) and IP management for start up	Elective	<a href="#">Activity Guideline</a>
9	Mentorship Session for Innovators (or) Student Entrepreneurs through experts and (or) Innovation Ambassadors/Innovation Agent	Elective	<a href="#">Activity Guideline</a>
10	Orientation session for all students & faculties of Institute by Innovation Ambassador(s)	Mandatory	<a href="#">Activity Guideline</a>

## Quarter 4

Thrust Area :Awareness about Startup and related Ecosystem

Sr. No.	Activity	Mandatory/Elective	Download
1	IIC Council Meeting- Review of Q3 progress and Planning for Q4	Mandatory	<a href="#">Activity Guideline</a>
2	Session on Prototype Validation - Converting Prototype into a Startup	Elective	<a href="#">Activity Guideline</a>
3	Session on Accelerators/Incubation - Opportunities for Students & Faculties - Early Stage Entrepreneurs	Elective	<a href="#">Activity Guideline</a>
4	Organise Session on "Lean Start-up & Minimum Viable Product/Business"- Boot Camp (or)Mentoring Session	Elective	<a href="#">Activity Guideline</a>
5	Session on Angel Investment/VC Funding Opportunity for Early Stage Entrepreneurs	Elective	<a href="#">Activity Guideline</a>
6	Session on Building an Innovation/ product fit for market	Elective	<a href="#">Activity Guideline</a>
7	Session/ Panel discussion with innovation and Startup Ecosystem Enablers from the region/state/national level	Elective	<a href="#">Activity Guideline</a>
8	Orientation session for all students & faculties of Institute by Innovation Ambassador	Elective	<a href="#">Activity Guideline</a>
9	Semester Break : Internship at startup.	Elective	<a href="#">Activity Guideline</a>

## Semester 2; Quarter 3

### Workshop on Intellectual Property Rights (IPRs) and IP management for start up



Narayana Translational Research and Incubation Centre  
Invites you for the Workshop on

### Intellectual Property Rights – Copyrights

*August 6, 2021; 4 pm*

#### Speaker



#### **Dr. P. Karthigeyan,**

M. Tech , Ph.D. (Intellectual Property rights), PGDIPR,  
DICFS (Cyber Security), PGDEP (Entrepreneurship),  
PGDCFS (Criminology & forensic Science )  
R&D Manager, MSME-TC, Ministry of MSME,  
Government of India.  
Former Research scientist, I.I.T Madras,  
GI Advocate No. 57 DPIIT, Ministry of commerce &  
Industry, Govt. of India

#### Patron



Dr. Surya Prakasa Rao, MD  
Professor and Dean, Narayana Medical College,  
Nellore, Andhra Pradesh, India.

#### Convenor



Dr. Sivakumar Vijayaraghavalu, Ph.D.  
Professor and Head, Narayana Translational Research and  
Incubation Centre, Mobile - 8925744196; Office - 0861-2355511  
extn 2406; E-mail - drvshiva@narayanamedicalcollege.com

When? Tomorrow August 6, 2021

Via Zoom online portal

Total Registrants so far – 214;

Expecting at least more than 300.

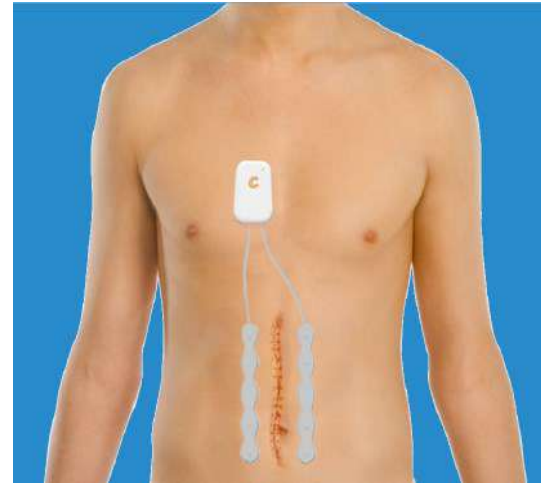
## Semester 2; Quarter 3

### Workshop on prototype/process design and development – prototyping

#### Investigation of Digital Biomarkers for Early Detection of Surgical Site Infections



Founder and CEO  
Crely Healthcare Pte. Ltd  
7 Temasek Blvd, #12-07  
Singapore 038987



#### **Crely's Early Warning System**


An AI-based warning system to predict and detect the likelihood of SSIs using a non-invasive, wearable medical device that continuously monitors patient's biomarkers remotely for clinical intervention.

$$I = C + PF \quad ???$$

Innovation = Concept + Process – functionalization

Example – stem cell therapy to address the loss of myelination in multiple sclerosis - the process to develop the therapy

## To promote innovation and invention

- ✓ Established Incubation Center and got the approval from MoE's IIC
- ✓ Formed Incubator management & mentor team for proper functioning of IIC
- ✓ Included staff and student members from all the Medical & its allied colleges of our institution in IIC. 
- ✓ Planned IIC calendar activities for the quarter 3 & 4.
- ❖ Organizing periodic workshops/ seminars/ interactions with entrepreneurs, investors, professionals and create a mentor pool for student innovators – thereby can create an innovative environment.
- ❖ Conduction of various innovation and entrepreneurship-related activities prescribed by Central MIC in time bound fashion.
- ❖ Identifying and rewarding innovations and share success stories.
- ❖ Networking with peers and national entrepreneurship development organizations.
- ❖ Creating an Institution's Innovation portal to highlight innovative projects carried out by institution's faculty and students.
- ❖ Organizing Hackathons, idea competition (Ideathon), mini-challenges.



## True Oneness

All five medical professional colleges joined for one single purpose – to promote innovation, Invention and Entrepreneurship

Thank you



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**INSTITUTION'S  
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COUNCIL**  
(Ministry of Education Initiative)

## Institute Innovation Council

*Conducted its First Meeting on August 5, 2021, 3 pm  
at Gray's Lecture Gallery, Narayana Medical College*



IIC President – Dr SP Rao



Attendees listening to Dr. SP Rao Speech



Innovation Activity Coordinator

Dr. Kannan.



IIC Convenor – Dr. Sivakumar,



Presentation by Convenor



Attendees listening to Dr. Kannan



IIC staff members



IIC student members