Criteria – 3

3.2.1 – Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge

S.No	Content
1	Initiatives for Creation and Transfer Knowledge
2	Inculcation of Indian Knowledge System (IKS)
3	Intellectual Property Rights & Innovation Activation
4	HACKATHON

Initiatives for Creation and Transfer Knowledge

S.No	Content
1	THOLKAPPIYAM -TOLKAPPIYAR

Initiatives for Creation and Transfer Knowledge

THOLKAPPIYAM -TOLKAPPIYAR

Understanding Tholkappiyam: A Student-Friendly Overview

Tholkappiyam might sound like a complex word, but it's actually an ancient book that helps us understand the Tamil language better. Imagine it as your guide to all the rules and secrets of Tamil grammar and writing. Let's break it down in a way that's easy to understand!

Tholkappiyam starts by teaching us how to write and pronounce Tamil letters. It's like learning the alphabet all over again. You'll discover cool things like vowels, consonants, and even fancy combinations of letters that make Tamil unique.

Famous Tamil Poet Arivumathi and Siddhantha Semmal Dr. S Sivakumar visit the literary Expo of our department

KURINJI

MULLAI

MARUTHAM

NEYTHAL

PALAI

Grammar Made Simple:

Next up, Tholkappiyam explains how to put words together in sentences. It's like putting puzzle pieces in the right order. You'll learn about nouns, verbs, and all the rules that make sentences work.

Words with Meaning:

Tholkappiyam also teaches us about the meaning of words. Imagine having a super dictionary that tells you what words really mean and how to use them effectively.

So, why should you care about Tholkappiyam?

Boost Your Tamil Skills: It's like leveling up in a video game. By understanding Tholkappiyam, you'll become a pro at Tamil writing and speaking.

Connect with History: Tholkappiyam is super old, like, over 2,000 years old! Learning it helps you connect with the ancient roots of the Tamil language.

Unlock Poetry : If you're into Tamil poetry, Tholkappiyam is your secret weapon. It's the key to understanding and creating beautiful Tamil poems.

In a nutshell, Tholkappiyam is your friendly guide to becoming a Tamil language expert. So, whether you're just starting to learn Tamil or you want to dive deeper into its rich history and poetry.

Inculcation of Indian Knowledge System (IKS)

S.No	Content
1	Selapthigram - Illangoadigal
2	Civaka Cintamani-Tirutakkatevar
3	The Ramayanam - Kambar

Inculcation of Indian Knowledge System (IKS)

SELAPTHIGRAM - ILLANGOADIGAL

A student's perspective on "Selapathigaram" would likely involve the following aspects:

1. **Historical Context**: Understanding the historical background of "Selapathigaram," a Tamil epic written by Ilango Adigal, is crucial. Students would appreciate its significance in the Sangam period and its portrayal of ancient Tamil culture.

2. **Literary Analysis**: Students would delve into the literary aspects, such as its poetic style, metaphors, and symbolism. They might analyze the characters, plot, and themes like love, chivalry, and honor.

3. **Cultural Significance:** From a cultural standpoint, students might explore how the epic reflects the values, social norms, and customs of its time. It offers insights into the role of women, the caste system, and the importance of poetry.

4. **Language and Translation:** Given that "Selapathigaram" is written in classical Tamil, students may discuss the challenges of translation and the nuances that might be lost in the process.

5. **Comparative Analysis:** Students might compare "Selapathigaram" to other classical epics like the Mahabharata or the Ramayana, examining both similarities and differences.

6. **Relevance Today:** Exploring how the themes of love, loyalty, and heroism in "Selapathigaram" still resonate with contemporary society could be another point of discussion.

This exhibition has been set up by the students as an example of what materials Tamil people used and how they led their lifestyle in the early

For advanced students, "Selapathigaram" could be a subject of academic research, leading to deeper insights into Tamil literature and culture.

Overall, a student's view of "Selapathigaram" would encompass historical, literary, cultural, and linguistic perspectives, offering a holistic understanding of this ancient Tamil epic.

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CIVAKA CINTAMANI-TIRUTAKKATEVAR

Certainly, from a student's point of view, there are several benefits to studying CīvakaCintāmaṇi:

1. Cultural Understanding: Exploring this epic can deepen a student's understanding of South Indian culture and heritage. It provides insights into the customs, traditions, and social values of ancient Tamil society.

2. Language Enrichment:CīvakaCintāmaṇi is renowned for its poetic language and intricate verses. Studying this epic can improve language skills, enrich vocabulary, and enhance appreciation for classical Tamil literature.

3. Moral Lessons: The epic is filled with moral dilemmas and character choices. Students can learn valuable life lessons about virtues, ethics, and consequences of actions through the experiences of the characters.

4. Literary Analysis: It provides an excellent opportunity for students to hone their literary analysis skills. They can explore themes, symbolism, character development, and narrative techniques, which are transferable skills applicable to other literary works.

5. Comparative Studies: Students can compare CīvakaCintāmaṇi with other ancient epics, such as the Mahabharata or Ramayana, or even with epics from different cultures. This fosters a broader perspective on world literature and cultural diversity.

6. Historical Context: Understanding the historical context in which the epic was written can broaden students' knowledge of the past. It connects literature with history, making it a multidisciplinary learning experience.

7. Critical Thinking: The epic presents complex situations and moral dilemmas. Students can engage in critical thinking and discussions about the characters' choices and the consequences, fostering analytical skills.

8. Appreciation of Diversity: Studying literature from different regions and cultures encourages students to appreciate the diversity of human experiences and storytelling traditions.

9. Creativity and Inspiration: The epic's rich storytelling can inspire creativity in students, encouraging them to write, illustrate, or reinterpret the story in their own ways.

10. Cultural Identity: For students with a Tamil background, studying CīvakaCintāmaṇi can strengthen their connection to their cultural roots and heritage.

In summary, CīvakaCintāmaṇi offers students a multifaceted learning experience, encompassing language skills, cultural understanding, moral development, and critical thinking. It enriches their education and provides valuable insights into the world of classical Tamil literature and its enduring relevance.

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Kallakurichi - 606 202

The Ramayanam - KAMBAR

Its Uses and Understanding for Students

The Ramayanam is an ancient Indian epic that offers numerous uses and valuable lessons for students. This epic story, attributed to the sage Valmiki, is more than just a tale; it's a source of inspiration, moral guidance, and cultural significance. Here's how students can benefit from understanding the Ramayanam:

1. Moral Lessons:

   Righteousness: The Ramayanam teaches the importance of adhering to dharma (duty) and doing what is right, even in challenging situations.

   Loyalty: Students can learn about unwavering loyalty from characters like Lakshmana, who stood by Lord Rama's side throughout his exile.

   Respect for Women: The epic emphasizes the respect and reverence for women, particularly through the character of Sita.

Patience and Perseverance: Sita's endurance during her captivity and Rama's unwavering quest to rescue her demonstrate the value of patience and determination.

2. Cultural Understanding: The Ramayanam provides insights into the rich tapestry of Indian culture, traditions, and mythology. Students can gain an appreciation for the religious and spiritual significance the epic holds for millions of people.

3. Literary Exploration:

   The epic is a masterpiece of ancient literature. It introduces students to the beauty of poetry, storytelling, and ancient Sanskrit literature.Studying the Ramayanam can improve vocabulary and comprehension skills.

4.Ethical Dilemmas:

   Through the characters' choices and actions, students can explore complex ethical dilemmas and their consequences.Discussions on topics like duty, sacrifice, and justice can promote critical thinking.

5. Comparative Studies:

   Students can compare the Ramayanam to other epics, such as the Mahabharata, to understand the diversity and depth of Indian mythology.This can broaden their cultural knowledge and appreciation.

6. Inspiration:

   The story of Rama's unwavering dedication to his duty and the triumph of good over evil can inspire students to strive for their own personal growth and righteousness.

7. Adaptations:

   Students can explore how the Ramayanam has been adapted into various forms, including movies, television shows, and theater, to see how its influence endures in contemporary culture.

The Ramayanam is a timeless epic that offers a wealth of uses and understanding for students. It not only imparts moral lessons and cultural insights but also serves as a source of literary inspiration and ethical exploration. Studying the Ramayanam can enrich students' knowledge and help them develop a deeper understanding of the world around them.

INTELLECTUAL PROPERTY RIGHTS & INNOVATION ACTIVATION

DR.R.K.S. COLLEGE OF ARTS & SCIENCE
(Nationally Accredited by NAAC B++) [Recognized by UGC u/s 2(f) &12(B)]
(An ISO 9001-2015 Certified Institution) Indili, KALLAKURICHI - 606 213.
and
Annamalai Innovation and Incubation Research Foundation Annamalai University - Chidambaram

Jointly Organizing

INTELLECTUAL PROPERTY RIGHTS AND INNOVATION ACTIVATION

Date :	Time :	Venue :
04.01.2024 Thursday	10.30. A.M. to 4.00 P.M.	Kamarajar Auditorium A/C

Chief Guest

Mr. R.KARTHIKEYAN
CEO, Annamalai Innovation and Incubation, Research Foundation - EDII, Annamalai University, Chidambaram.

All are Invited by
Pre Incubation Facilitation Centre

Entrepreneurship
DEVELOPMENT AND INNOVATION INSTITUTE
GOVERNMENT OF TAMIL NADU

INTELLECTUAL PROPERTY RIGHTS
PROGRAMME AGENDA

Date:04.01.2024	Time:10:30 AM	Venue: Kamarajar Auditoriu

Thamizhthai Vazhthu	:	
Lighting the Divine lamp	:	
Welcome Address	:	Mrs. C. CHANDRAPRIYA, M.Sc.,M.Phil., Assistant Professor, Department of Computer Science.
PresidentialAddress	:	Dr. G. MOHANASUNDER, M.A.,M.Phil.,Ph.D., Principal, Dr.R.K.S College of Arts and Science.
Felicitation Address	:	Dr. P. JOHNVICTOR,M.Com.,M.Phil.,MBA.,Ph.D., Vice Principal,DR.R.K.S College of Arts and Science.
Resource Person Honouring	:	Dignitaries
Guest Introduction	:	Ms. N. KAYALVIZHI,M.C.A.,M.Phil.,B.Ed., Assistant Professor, Department of Compute Applications
Resource Person Address	:	Mr. R. KARTHIKEYAN CEO, Annamalai Innovation and Incubation, Research Foundation-EDII, Annamalai University, Chidambaram.
Topic	:	INTELLECTUAL PROPERTY RIGHTS AND INNOVATION ACTIVATION
Feedback	:	Students
Vote of Thanks	:	Mr.M.SAKTHIVEL,MCA,M.Phil.,(Ph.D)., HOD, Department of Computer Science EDC Coordinator, Placement Cell Officer,
National Anthem	:	

Venue: kamarajar auditorium

Date: 04.01.2024   Thursday

Entrepreneurship development cell of Annamalai Inovation and Incubation research Foundation and DR.R.K.S College of art and Science, College collaboratively successfully organized one day workshop on **INTELLECTUAL PROPERTY RIGHTS & INNOVATION ACTIVATION** on 04.01.2024. The programmed was formally inaugurated with lighting the divine Lamp. Welcome speech was given by Mrs.C.Chandrapriya, Assistant Professor of Computer Science. The Presidential address was given by Dr.G.Mohanasunder; Principal of our College and felicitation address was given by Dr.P.John victor, vice principl of our College. The dignitaries of our management honored the resource person.

Ms.N.Kayalvizhi, Assistant professor of computer science application introduced the biography of the resource person.

The main objective of this programme is to create awareness among the student of Art & Science about various facts of entrepreneurship as on alternative career option.

The resource person Mr.R.Karthikeyan,CEO Annamalai Innovation and Incubation, Research Foundation-EDII, Annamalai University, addressed the participants .He gave Wonderful speech on the topic Intellectual Property rights &Innovation Activation. He speak about how to get clear picture of problem they identified & how to convert that into valuable business ideas.

Students were made to sit in a group of 10 members and gives with some problem. They insist to discuss the problem and come up with innovative solutions. This activity helped the participants to get involved with.

Approximately about 150 student were participated in the workshop. The workshop was successfully co-ordinate by the members of ED cell. Under the leadership of Mr.Sakthivel, Head of the Department of Computer Science.

Session 2: 2:00pm to 4:00pm

In the second session, Niral Tiruvizha , we have projected the ideas shared by our student .The resource person look into the ideas and gave his perception & value addition to those ideas. The students were give opportunity to explain their ideas session was dealt with the use of many videos.

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INDILI, KALLAKURICHI - 606 213

Entrepreneurship

INTELLECTUAL PROPERTY RIGHTS, INNOVATION ACTIVATION AND NIRAL THIRUVIZHA

ATTENDANCE SHEET

DATE: 04.01.2024

VENUE: KAMARAJAR AUDITORIUM

S.NO	NAME	CLASS	SIGNATURES
1.	G. MANI	III - BCA - A	G. Mani
2.	T. ANANDH	III - BCA - A	T. Anandh
3.	M. SURENDHAR	III - BCA - B	N. Lif.
4	K. Nirmalbalaji	III - BCA - B	k. Mon
5.	G. Sarathi	III - BCA - B	G. Sathi
6.	C. Varun	III BCA B	Va
7	B. Mahesh	II BCA A	B. mahesh
8.	E. JOHN PRAKASH	III BCA A	E. John Prakash.
9	J. IBRAHIM	III BCA A	J. Ib
10.	M. MAHENDIRAN	III BCA - A	m. mahe
11.	G. VARUN	II - BCA - B	G.V
12.	M.Y. SHEICK ZAHEED	II - BCA - B	SR.
13	M. MANOJ	II - BCA - A	Manoj
14.	S. DHANUSU	II - BCA - A	S. Dha
15.)	E. Boobalavo	II - BCA - A	E.B
16.)	S Mohamed Adhnan	II - BCA - A	S. Adh.
17	K. Karthikeyan	II - BCA - A	K. Karthikeyan
18)	M. Girinath	II - BCA - A	M. Girith
19)	M. DHILEEPAN	II - BCA - A	M.Dhileepan
20	A. KALLAZHAGAN	II BCA - A	Kvi
21)	M. Mohamed Murshith	II - BCA - A	M.
22	K. Arshath Shariff	II BCA - A	

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Entrepreneurship

INTELLECTUAL PROPERTY RIGHTS, INNOVATION ACTIVATION AND NIRAL THIRUVIZHA

ATTENDANCE SHEET

DATE: 04.01.2024

VENUE: KAMARAJAR AUDITORIUM

S.NO	NAME	CLASS	SIGNATURES
1.	RATNAGIRI A.	III B.Com	A Dotragiri
2.	KARTHIKEYAN S.	III B.com	S.Karthikeyan
03.	G. AKASH	III B. Com	G. Akaad
04	GOKULAKRISHNAN·R	III B·com	R. Gokul
05	E.PRASANTH	III-B.com	E.PR
6	K. PADAMASIVAM	III·B.com	K. PadSivam
07.	LOGIA PRADEEP. K	III-B.com	k. hoga.
0.8	DHANUSHKUMAR·S	III-B.com	SDK
09.	K. DINESH KUMAR.	III-Bcom	(uf
10	P. POOBESH	III-Bcom	P. P
11	ANBU. C	III. B.com	C. Anl
12	ANBUMANI.V	III, B.Con	V. Anbu
3	SIVA ·C	III Bcom	C. Sivt.
14	P. KRISHNAN	III-B com	P.krishnan
15	R. RITHICKKUMA	III-B com	the
16	S SHEIK FAREED Ali	II. B.Com	Shik
17	M. Sujumaroh	II. B.com	M Sujumaroh
18	A shaik hussain	II - B Com	the
19	J San thosh.	II rd-B.com	Sman
20	V. Balasundaram	III. B.Com	Bala
21.	J. Hariprakash	II. B.Com.	J.Hariprakash.
22.	K Elavarasan·	I-M.com	b Elavarason.

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INTELLECTUAL PROPERTY RIGHTS, INNOVATION ACTIVATION AND NIRAL THIRUVIZHA

ATTENDANCE SHEET

DATE: 04.01.2024

VENUE: KAMARAJAR AUDITORIUM

S.NO	NAME	CLASS	SIGNATURES
01.	1. Arul Anand.	I - M.sc (phy)	I.P. Arief....
02.	S. Asthukkanasan	II - M.sc.(PHY)	S. Anmluf..
03	S. SANJAY	I - BSc (PHY)	S. Sanjay
04	A. ANANDH	I - B.Sc (PHY)	A. Ananth

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ATTENDANCE SHEET

DATE: 04.01.2024   VENUE: KAMARAJAR AUDITORIUM

S.NO	NAME	CLASS	SIGNATURES
1	A. Vimala Jenci	I-MSC	Jenci.
2	M. Pavisthra	III - CS	M. Pavithra
3	B. Devika	III - CS	B. Devika
4	A. Kaviya	III - CS	A. Kaviya
5	M. Susila	III - CS	M. Susila
6	M. Panjalai	III - CS	M. Panjalai
7	S. Jayapriya	III - CS	S. Jayapriya
8	S. Saranya	III - CS	S. Saranya

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INTELLECTUAL PROPERTY RIGHTS, INNOVATION ACTIVATION AND NIRAL THIRUVIZHA

ATTENDANCE SHEET

DATE: 04.01.2024   VENUE: KAMARAJAR AUDITORIUM

S.NO	NAME	CLASS	SIGNATURES
1.	T. MANI MEGALAI	I. M.A Eng	T. Mani
2.	A. ABINAYA	I. M.A Eng	Ainye
3.	R. Sujatha	III - B.A Eng	R. Sjatha.
4.	J. JOHN SELSTYA.	III - B.A. Eng	J. Johnsolaye
5.	R. POOJA	III-B.A ENG	R. Pooja
6	K. KALAIMOZHI	III - B.A ENG	K. Bub
7.	P.M.DHILIP KUMAR	IV B.A ENG	P. Dhilip
8.	A. INIYAN	II B.A. ENG	A. Iniwat
9.	J. SARAN	III B.A. ENG	J. Saiy
10.	P. SIVASHANKAR	II .B.A ENG	P. B18
11.	M. ARUN KUMAR	II B A Eng	Ayp
12.	B MANIBHARATHI	II - B.A Eng	un a.Ql2
13.	N. AnboRasu	II - B.A Eng	Bdd
14.	B. Sathyanarayanan	III - B.A. Eng	B. & th
15.	D. Dhinesh	III - B.A English	D. Dh
16	M. Makiyarasan	III B.A English	M Mik
17.	k. priyadharshini	II. MA. English	k pegah
18.	R. Shobana	II. M.A Eng	R. sheej
19.	E. Poonthamil	II. M.A Eng	E. Pad

DR.R.K. Shanmugam College of Arts and Science

DEPARTMENT OF MATHEMATICS

Niral Thiruvizha

Ideas Details (Draft)

1. Which theme are you targeting with your solution?	CLEAN AND GREEN TECHNOLOGY
2. If you picked the option 'others' in the above question, Describe your theme? (Characters:100)	NILL
3. If you picked the option 'others' in the above question, Describe your Problem Statement? (Characters:1000)	NILL
4. Description of the Problem Statement? (Characters:1000)	IN CINEMA THEATERS TO MAINTAIN CLEAN AND HEALTHY ENVIRONMENT
5. Idea Title (Character:200)	(i) Cleaning by escalator (ii) It avoids the mistakes & accidents using censor while cleaning (iii) It resizes the wastage using compression.
6. Solution Statement (Characters:1000)	We introduce this method to reduce the working hour & effort of the scavangers it also reduce expenses & long last. So we can clean the theater by using this method.
7. Detailed Solution (Characters:5000)	In a theater, to reduce the work burden and man power, we can remove the wastage whichever dropped down to the floor of the theater by using the escalator. To reduce the error & accidents we can use sensor & scanner to identify the wastage & missing item of the human. morever it can collect wastage from more number of moving belts compress and reduce the size of the while wastage and it can be clean itself.

8. Do you already have a prototype built? **ANS: YES or No**	YES
9. Is this idea submitted by you or your team members in any other Forum or Programs or Publications as on date? **ANS: YES or No**	NO
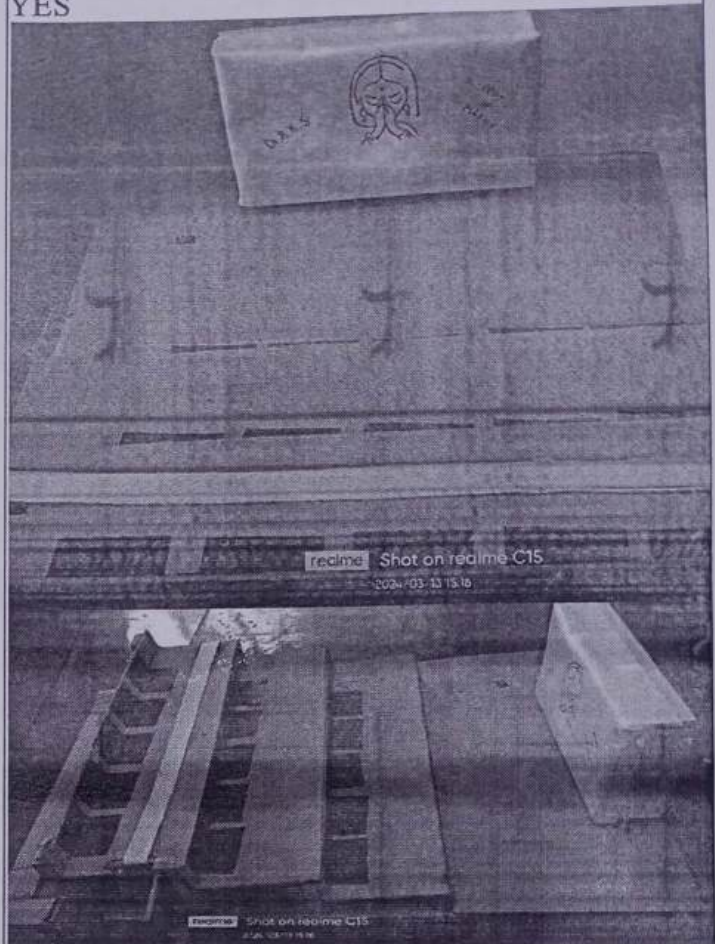
N. Manogal
Department Mentor

E. ᐯᐯᔪ
H.O.D

[signature]
Principal

1	NAME OF YOUR EDUCATIONAL INSTITUTION. DR.R.K.S.COLLEGE OF ARTS AND SCIENCE,INDILI ,KALLAKURICHI			
2	NAME OF THE STUDENT MENTOR OF YOUR TEAM. MR. N. MANOGARAN			
3	NAME OF YOUR TEAM. CO-BOTICS CLEANING TECHNOLOGISTS			
4	NAME OF THE TEAM LEADER. S. PARTHASARATHY			

5	TEAM DETAILS				
	SI.NO	NAME	DATE OF BIRTH/AGE	GENDER	YEAR OF STUDYING
	1	R. TAMILARASAN	03/02/2004	MALE	2ND YEAR
	2	S. PARTHASARATHY	09/11/2003	MALE	3RD YEAR
	3	M. BALACHANDER	22/07/2004	MALE	3RD YAER
	4	V. NEENA	18/11/2003	FEMALE	2ND YAER
	5	K. HARIKEERTHANA	09/08/2003	FEMALE	3RD YAER

Niral Thiruvizha

Ideas Details (Draft) – Department of Computer Science

1. **Which theme are you targeting with your solution?**
    1.   **Agritech & Food Technology**
    2.   **Clean and Green Technology**
    3.   **Education 4.0**
    4.   **Health/Med Tech**
    5.   **Heritage & Culture**
    6.   **Renewable & Sustainable Energy**
    7.   **Smart Town/City**
    8.   **Smart Manufacturing**
    9.   **Waste Management**
    10.   **Water & Soil Conservation**
    11.   **Others**

2. **If you picked the option 'others' in the above question, Describe your theme? (Character:100)**
    4. Health/Med Tech

3. **If you picked the option 'others' in the above question, Describe your Problem Statement? (Character:1000)**
    4.Health/Med Tech

4. **Description of the Problem Statement? (Character:1000)**
    The incomplete relief of depression symptoms, attrition, and follow-up loss in mental health care are critical issues. AI chatbots can provide 24/7 support, personalized interventions, continuous monitoring, psychoeducation, and facilitate therapeutic alliance. Through machine learning, they tailor interventions, analyze user data for early intervention, and empower individuals with coping skills. This integration enhances treatment efficacy and accessibility while addressing barriers like stigma and geographical constraints. Ethical considerations must guide responsible deployment in mental health care.

5. **Idea Title** (Character:200)
    AI Mental Health Chat bots

6. **Solution Statement (Character:1000)**
    These chat bots offer 24/7 personalized support, leveraging machine learning to tailor interventions and monitor progress. They provide psycho education, skill-building exercises, and facilitate therapeutic alliance, enhancing treatment engagement and efficacy. By addressing barriers like stigma and accessibility, our solution empowers individuals to manage symptoms effectively, leading to improved outcomes and reduced attrition rates in mental health care.

7. **Detailed Solution (Character:5000)**

Our comprehensive solution harnesses the power of AI-driven chatbots to revolutionize depression treatment, addressing the challenges of incomplete symptom relief, attrition, and follow-up loss in mental health care.

24/7 Personalized Support:
AI chatbots provide round-the-clock access to personalized support, overcoming barriers like stigma and geographical constraints. Individuals can engage with the chatbots anytime, receiving immediate assistance and guidance.

Tailored Interventions:
Utilizing machine learning algorithms, chatbots analyze individual data including symptoms, treatment history, and preferences to tailor interventions. This customization ensures that treatment approaches align with each person's unique needs and circumstances.

Continuous Monitoring and Intervention:
Through natural language processing (NLP) and sentiment analysis, chatbots continuously monitor users' mental health status and treatment progress. Early warning signs of relapse or treatment non-adherence are identified, enabling timely interventions to prevent deterioration.

Psychoeducation and Skill Building:
Chatbots deliver psychoeducation on depression, coping strategies, and self-care techniques in an interactive and engaging manner. They provide resources and guidance for skill-building exercises such as mindfulness practices and cognitive-behavioral techniques, empowering individuals to manage their symptoms effectively.

Facilitation of Therapeutic Alliance:
AI chatbots complement traditional therapy by enhancing communication and rapport-building between individuals and mental health professionals. They serve as intermediaries for scheduling appointments, delivering reminders, and facilitating communication between sessions, strengthening the therapeutic alliance.

Improved Treatment Engagement:
By offering accessible and personalized support, chatbots increase treatment engagement and adherence. Individuals feel supported and empowered to actively participate in their treatment, leading to improved outcomes and reduced attrition rates.

Ethical Considerations:
Ethical guidelines and privacy measures are prioritized to ensure responsible deployment of AI chatbots in mental health care. Data security, confidentiality, and informed consent are upheld to protect users' privacy and autonomy.

Impact:

Our solution has the potential to significantly improve mental health treatment outcomes by addressing barriers to access, enhancing treatment engagement, and providing personalized support. By empowering individuals to manage their symptoms effectively, we aim to reduce the burden of depression and promote overall well-being.

In summary, our AI-driven chatbot solution transforms depression treatment by offering personalized support, continuous monitoring, psychoeducation, and facilitation of therapeutic alliance. Through responsible deployment and ethical considerations, we strive to revolutionize mental health care and improve the lives of individuals struggling with depression.

8. **Do you already have a prototype built?**

   ANS: YES

9. **Is this idea submitted by you or your team members in any other Forum or Programs or Publications as on date?**

   ANS: No

HOD

1. **Which theme are you targeting with your solution?**
   1. **Agritech & Food Technology**
   2. **Clean and Green Technology**
   3. **Education 4.0**
   4. **Health/Med Tech**
   5. **Heritage & Culture**
   6. **Renewable & Sustainable Energy**
   7. **Smart Town/City**
   8. **Smart Manufacturing**
   9. **Waste Management**
   10. **Water & Soil Conservation**
   11. **Others**

2. **If you picked the option 'others' in the above question, Describe your theme?**

   The project is about the design and development of a solar panel cleaning system. The main object of this design prototype is to clean the solar panel using an electrical mechanism, such that efficiency or quality of solar panel is not compromised. As a matter of fact, gulf region - especially Saudi Arabia- are facing a lot of dust storms and the solar panels need to be cleaned frequently. If task is performed manually, it will be very costly and time consuming. Water sprinklers and a special wiping material shall be used in the conceived mechanism design to insure quality of cleaning.

3. **If you picked the option 'others' in the above question, Describe your Problem Statement?**

   6. Renewable and sustainable energy

4. **Idea Title**
   Solar Panel with Simple Cleaning Mechanism

5. **Solution Statement**

   There is more than enough solar radiation available around the world to satisfy the demand for solar power systems. The proportion of the sun's rays that reach the earth's surface is enough to provide for global energy consumption 10,000 times over. On average, each square meter of land is exposed to enough sunlight to produce 1,700 kWh of power every year. Solar Panel has a huge effect on our world. It can helps our environment to be better without using other power generation plants that can harm the environment, but solar power plant needs to be cleaned at least every 3 days.

6. **Detailed Solution**

   The system by pressing the on/off switch, and the microcontroller initializes the cleaning mechanism. The

viper assembly is driven by a motor that moves along the length of the solar panel, removing dirt and debris from the surface of the solar panel. Water is sprayed onto the surface of the solar panel to assist in cleaning. The microcontroller monitors the operation of the cleaning mechanism, ensuring that it is moving along the entire surface of the solar panel and operating within safe parameters. Once the cleaning is complete, the microcontroller sends a signal to the motor to stop by switch, and the brush assembly is returned to its starting position, with the rack and pinion system disengaged.

Salient features of the proposed cleaning mechanism

Some of the most salient features of the proposed cleaning system are numerated below. As seen, the investigated project overcomes most of the drawbacks of existing systems, especially regarding water consumption.

1. Rainwater harvesting
2. Recycle 80% of the cleaning water.
3. The system does not require refilling.
4. Automatic on/off clean system.
5. No moving parts or robotic elements.
6. No man power is required for cleaning.
7. **Do you already have a prototype built?**
        ANS: YES
8. **Is this idea submitted by you or your team members in any other Forum or Programs or Publications as on date?**
        ANS: No

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