11 JAN, 2024

AVINYA SHISHIR
2024

Exhibition of
DESIGN THINKING
FOR SOCIAL INNOVATION
COURSE PROJECTS

KLE Technological University

KLE TECH

Creating Value
Leveraging Knowledge

Dr. M. S. Sheshgiri Campus, Belagavi   Ph: 0831-2440322

DESIGN THINKING FOR SOCIAL INNOVATION

Message from VICE-CHANCELLOR
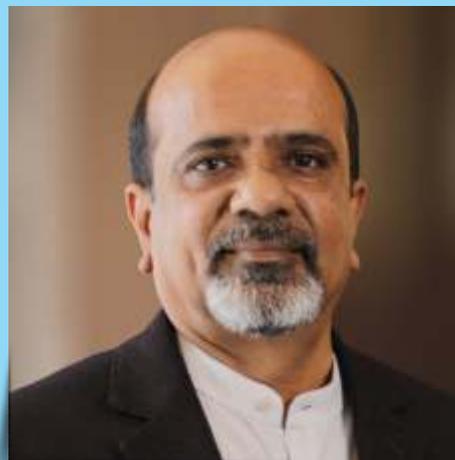
Design Thinking for Social Innovation course is being implemented by KLE Technological University's, Belagavi campus to encourage the students to connect with the society empathetically to understand the social problems and offer innovative solutions through design thinking approach. Social problems are complex, ill-defined, wicked problems. Finding effective ways to tackle and deal with them is often quite difficult. Because of that, KLE Technological University's, Belagavi campus has embraced design thinking as a preferred approach to address similar challenges.

The course offers students an opportunity to experience the real time problems faced by the needy people in society at the first year level. By the time they complete the undergraduate program students will have the competency of looking for the possible design challenges in the society through the engagement with the potential customer which further can lead to a product or service creation leading to social entrepreneurship.

The main idea of the course is to provide the platform for the students substantiate the importance of role of engineer in the society, enhance team work, presentation skills and solve problems in the society.

The first year students have shown tremendous enthusiasm in this course and given solutions to the problems in the society and these solutions are being exhibited on 11th January 2024 under the banner of Avinya Shishir 2024.

I wish this event a grand success and congratulate students and faculty members for their continuous efforts.

DR. ASHOK S. SHETTAR
Vice-Chancellor,
KLE Technological University, Hubballi.

Design Thinking for Social Innovation

@KLE MSSCET (KLE Tech, Belagavi Campus)

Design Thinking is a non-linear, iterative process that teams use to understand users, challenge assumptions, redefine problems and create innovative solutions to prototype and test. Involving five phases-Empathize, Define, Ideate, Prototype and Test-it is most useful to tackle problems that are ill-defined or unknown.

Social Innovation refers to the design and implementation of new solutions that imply conceptual, process, product, or organizational change, which ultimately aim to improve the welfare and wellbeing of individuals and communities.

This first year course enables the students establish connect with the society to understand the societal problems of the needy people in the society. The students work in the teams to solve the problems in the society.

Message from
PRINCIPAL

It's been always a persistent effort from the KLE Technological University's constituent college at Belagavi campus to offer the innovative courses for the students of second batch under ambit of KLE Society, Belagavi. A new innovative participative learning connecting empathetically to the needy people in the society has always been a need of the hour. Accordingly rudimentary practices of class room learning to off campus learning is encouraged where they need to establish a connect with the people to give solutions to the social challenges faced. Students of the first semester, in their endeavor have put in their best efforts to solve more than 50 such challenges in the society.

The first year course, "Design Thinking for Social Innovation (DTSI)", designed by the Center of Engineering Exploration and Engineering Research is a signature course at this university. This course focuses on identifying the social challenges existing in the society by establishing an empathetic connect with the stake holders and provide innovative and cost effective solutions through team work. In the DTSI course, students work in the vernacular groups coming from different discipline. The process of Design Thinking starts with a community visit to explore the possibilities of social challenges for solving the problem.

The exhibition "Avinya Shishir 2024" is being conducted on January 11th 2024, at the campus. This exhibition is going to showcase 65+ solutions to the social challenges given by the first-year undergraduate engineering students.

I congratulate students and faculty members for showing how perseverance breeds success.

DR. S. F. Patil
Principal
KLE Dr. M. S. Sheshgiri College of
Engineering & Technology, Belagavi

Sl.No.	Title
1	ANIMAL DUNG CLEANER
2	SOLAR POWER BANK FOR ROAD SIDE VENDORS
3	APPLICATION BASED MENTAL HEALTH SOLUTIONS
4	WEBSITE OF HOPE: UNLOCKING BASIC NEEDS OF NEEDY ONE'S
5	DEADDICT PEOPLE FROM TOBACCO IN THE SOCIETY
6	EFFECTIVE TEACHING OF BIOLOGICAL CHARTS & MODELS TO DUMB & DEAF STUDENTS
7	WEBSITE CREATION OF SIGN LANGUAGE
8	SMART SHOES
9	VERTICAL FARMING BY HYDROPONICS
10	ENLIGHTEN MINDS: EMPOWERING SIDDHANT FREE BOARDING SCHOOL WITH EDUCATIONAL VIDEOS
11	SAMRUDDHA FOUNDATION FOR DISABLED
12	CHARTS AND VIDEOS FOR DEAF AND DUMB STUDENTS
13	DEVELOPING WEBSITE FOR DEAF AND DUMB CHILDREN
14	DEVELOPING BRAILLE KEYBOARD FOR BLIND PEOPLE
15	DEVELOPING AURA FOR BLIND PEOPLE
16	SMART WHITE CANE STICK
17	EMPOWER INSIGHT: NAVIGATING KNOWLEDGE THROUGH ACCESSIBILITY
18	DISCOVER CREATIVE LEARNING
19	ECO-COLLECT

TITLE: ANIMAL DUNG CLEANER

Division: **C Div**

Team Members

Name	SRN
Sourav G Yallur	**02FE23BCS127**
Shashank M Harakuni	**02FE23BCS098**
Shraddha B chougula	**02FE23BCS114**
Sushma S pujari	**02FE23BCS102**
Sarosh Bagewadi	**02FE23BCS002**

Guide: **Dr. Santosh Nandi**

Point of View Statement:

The Cattle owner of Sadashiv Nagar, Belgaum needs a way to store and dispose animal waste ,to maintain clean and Hygiene environment ,to avoid hesitation of labours in picking and collecting Anima waste .However ,there is a lack of storage space , cleaning equipment ,lack of drainage system and shortage of Manpower due to nature of work involved . Inspite of knowing awareness and importance of SWATCH BHARAT ABHIYAN.

Abstract:

Social challenge identified by our team is Animal Dung cleaner. As we know that cleanliness and maintaining hygiene environment is the unavoidable part of the life. And as the time goes their is a drastic development in the technology,Farming , cattle rearering, poultry and live stock is mainly contributing to Global Economy. Hence The Animal waste produced from this sector is increasing every year . From the reasech it is found that every year 5000 tons of waste is produced and also there is hesitation among labours in Picking animal waste. Also they are wasting their productive time which can be used in any other usefull way .Hence we found a Animal Dung cleaner for Farmers and cattle owners Which will be found useful in their Daily Life . We found this social challenge at Location. Sadashiv Nagar Belgaum Karnataka. In our case.

Stakeholders are:

1. Primary stakeholders:-Ravi Desai (farmer). And Sanket jadhav (Cattle owner).
2. Secondary stakeholders:-Mahesh and jayshree (Residential people)
3. Tertiary stakeholders:-Ramesh and Sachine(Municipal corporator).

Pain points:

1. They don't have their own Land
2. There is a lack of storage space
3. Repeated cleaning of the space by their own Land .
4. Requires Hard work
5. Lack of cleaning equipment
6. Hesitation among Labours due to nature of work involved.
7. Bad smell
8. Lack of drainage system
9. Carrying the Animal waste during Rainy season is difficult.

Gain points:

1. They get profit by rearing Cattles.
2. Their Income is increased by Selling Milk .
3. They take cattles for veterinary checkup.

After Defining the problem. The next step is to Analyse and Generat the Ideas.

Brainstorming 25 ideas:

1. To make dung picking device
2. Solar Automatic Dung cleaner
3. Animals watse as a fertilizer
4. we can make Biogas out of it
5. Solar dung drying unit.
6. Biodegradable Dung bags.
7. Cow dung based adsorbent can be made out of it.

These are the top ideas

WE apply Impact and feasibility rule to select these ideas.

After this The next step is prototyping. We analyse and select the more efficient and low Cost Solution. That is. Final Solution selected by our team is. Animal dung cleaner. After the preparation of the model. We have taken the feedback from users . We got good response and feedback from the user and the modifications to be made is that it should still widen it's area .to pick large quantity of waste

Feedback about the Course

The course is very interesting and helps in the generation of innovative ideas and this helps the students to think about the social challenges faced by peoples in society. It helps in building a communication and interaction with peoples. To be creative and expressing our ideas. Overall it is a good and helpful in Improving the country development.

TITLE: **SOLAR POWER BANK FOR ROAD SIDE VENDORS**

Division: **C Div**

Team Members

Name	SRN
Aastha Mishra	**02FE23BCS096**
S Srija	**02FE23BCS048**
Srushti Honnangi	**02FE23BCS062**
Manoj Kambali	**02FE23BCS113**
Siddhant Shetti	**02FE23BCS097**

Guide: **Dr. Santosh Nandi**

Point of View Statement:

The local fruit and vegetable vendors of Bhagya Nagar and Vadagaon market, Belagavi needs a way to sell their vegetables and fruits even during the dark efficiently. However, there is a lack of proper luminating source, shelter, an inadequate marketing environment, unhygienic environment and congested, narrow streets. Despite all these challenges, they show an unwavering determination towards their work.

Abstract:

This project aims to address the energy needs of street vendors by developing a solar power bank system tailored for efficient light illumination. In Vadgao and Bhagyanagar market most of the street vendors operate in environments with limited access to electrical infrastructure, leading to challenges in providing adequate lighting during evening hours. The proposed solution involves the integration of solar panels into portable power banks, allowing vendors to harness solar energy during the day and utilize stored power for lighting their stalls at night.

Our stakeholders are:

Primary Stake Holder:

1. Kamalavva (Fruit vendor)
2. Ashok Birje (vegetable vendor)

Secondary Stake Holder:

1. Kamalavva (Fruit vendor)
2. Ashok Birje (vegetable vendor)

Tertiary Stake Holder:

1. Uttam Jadhav (Ground rent city corporation)
2. Sahil Patil (Ground rent city corporation)

Pain points :

1. Face difficulty in making sales during dark due to lack of illuminating source of light
2. Difficulty in fetching fresh products during dark for locals.
3. Lack of proper shelter during rain fall.
4. Inconvience to carry heave load of the cart
5. Inconvience in commutating during rain fall as area becomes slush
6. Cost cart is high.

GAIN POINTS :

1.Would be able to make enough sales during the dark conventiently.
2.Would be able to make better living for farmers who sell their produce.
3.Vendors use rechargeable batteries as alternate source
4.Locals will get fresh produce from market rather than buying it from supermarket.
5.Some area have security cameras so that vendors can leave their belongings during night time.

We carried out numerous visits to the location in order to define the problem. We interacted with the stakeholders to know their pain points and on the basis of our observations we came up with total of 25 ideas during the brainstorming session and on the basis of those ideas, we carried out idea filtration and idea evaluation to define one core problem that the stakeholders were facing so as to work towards building a solution for that particular problem we made a solar power bank

Feedback about the Course

This course of design thinking and social innovation has immensely helped us in instilling the attribute of empathy in ourselves. We feel grateful and euphoric as this course paved a way to numerous opportunities and helped us in learning and improving core skills like communication, team work, team building and so on which would definitely help us in our future endeavours.

TITLE: **APPLICATION BASED MENTAL HEALTH SOLUTIONS**

Division: **C Div**

Team Members

Name	SRN
Sahana Kurer	**02FE23BEC044**
Gouri R. Chobari	**02FE23BEC045**
Vijaylakshmi Hatti	**02FE23BEC077**
Amruta Alagur	**02FE23BEC041**
Nikhita Talawar	**02FE23BEC038**

Guide: **Dr. Santosh Nandi**

Point of View Statement:

The teenagers/students of Belagavi situated in Karnataka need a solution to reduce stress and mental health instability caused due to academic failure, financial unstable and other household conditions and hence to fulfill their goals, ambitions and dreams. However there is lack of accurate solution from parents and teachers i.e there is lack of emotional understanding from the society, being discouraged for scoring bad grades, by not being attentive, lack of sleep, poor physical health etc.,

Abstract:

To find Application based mental health solutions is our social challenge, location is present in Belagavi district .In this generation especially the youngsters face a lot of challenges and difficulties in there lives and now a days mental health has become a concern to ever one because of the advance technology and personal affairs.   The young youth face a lots of issues related to mental health like depression, anxiety, negative thoughts, lack of presence ect., are the issues faced by the young generation to overcome of reduce this problems we are creating an website which helps to acknowledge ourselves about the old practices like yoga and meditation like how important are they in our daily life and how to meditate proper and what are the symptoms of depression and how to overcome those difficulties and know at what stage a person is even we have added some contacts of highly qualified physiologist who can help any one to come out if the situation .

PAIN POINTS are:

Detachment from family members.

Suffering from Anxiety

Fear of interacting with people.

Fear of failure.

Social Anxiety

Lack of motivation, lack of sleep.

Fear of society's judgement.

GAIN POINTS are:

Peaceful environment

Environment sources such as TV

Having joyful time with family

Playing sports

Engaging / Distracting yourself by taking part in co- curricular.

Feedback about the Course

This course gave us an idea about various problems faced by the people in a society. We are very glad and grateful to this course because it allowed us to explore more about the human society, we met a lot of new people. During our challenge period we learnt interesting and fascinating things and real life incidents from our stakeholders.

TITLE: "WEBSITE OF HOPE: UNLOCKING BASIC NEEDS OF NEEDY ONE'S"

Division: **C Div**

Team Members

Name	SRN
Nagendra Vernekar	02FE23BCS003
Tarun Rangolli	02FE23BCS042
Sachin Patil	02FE23BCS009
Ruchita Kokkari	02FE23BCS066
Tanvi Korgaonkar	02FE23BCS013

Guide: **Dr. Santosh Nandi**

Point of View Statement:

The children of "Siddharth Free Boarding School" residing Shahpur area of Belagavi . They need enhanced facilities to pursue their goals and ambitions. unfortunately, they face inadequate amount of food facilities and insufficient basic essentials and lack of educational support system lack of support from parents like low income. inspite their interest in education to achieve their goals.

Abstract:

In Shahpur, Belagavi, Siddharth Free Boarding School strives to offer food and shelter to underprivileged children in Nath Pai Circle. However, the institution faces substantial challenges, including inadequate food, shelter, and nutrition, compounded by a shortage of proper educational equipment. Primary stakeholders, the children, and secondary stakeholders, the caretakers, grapple with difficulties such as insufficient cooking equipment. The owner, a tertiary stakeholder, contends with financial struggles. Pain points encompass insufficient food and water, a lack of social platforms, and limited funds.

Within these challenges, positive aspects emerge, notably dedicated caretakers ensuring the children have the opportunity to attend school. Employing a systematic problem-solving approach, the team initiated stakeholder analysis, identifying key issues through brainstorming and filtering ideas for feasibility. This process culminated in the strategic decision to create a website. This platform enables people to donate, contributing to Siddharth Free Boarding School's overall development.

The team rigorously tested the website with stakeholders, ensuring its effectiveness and gathering valuable feedback for continuous improvement. Their ultimate goal is to uplift the institution, fostering a brighter future for its beneficiaries.

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Feedback about the Course

"Design Thinking and Social Innovation has been an eye-opening journey, equipping me with invaluable skills to identify and understand societal challenges. The course adeptly navigates the intricacies of problem-solving by emphasizing a holistic approach. Learning to engage with stakeholders has been transformative, fostering a deeper understanding of real-world issues. This subject not only unveils the layers of problems but also empowers us with the tools to create meaningful solutions, making it a truly impactful and insightful experience."

TITLE: DEADDICT PEOPLE FROM TOBACCO IN THE SOCIETY

Division: **C Div**

Team Members

Name	SRN
Poorva Kamat	**02FE23BEC061**
Sanjana Mallaraddi	**02FE23BEC038**
Rashmi Ibrahimpur	**02FE23BEC082**
Akash Ganiger	**02FE23BEC013**
Darshan Patil	**02FE23BEC022**

Guide: **Dr. S. S. Nesaragi**

Point of View Statement:

Middle aged people consuming tobacco which have been diagnosed with cancer symptoms in KLE hospital near Nehru Nagar Belagavi needs a way to help them to quit to pursue good health and overcome their physical and psychological distress. However, there is lack of support from some of their family members. Because the family faces mental distress and often engage into conflicts inspite of a will to support the addictor.

Abstract:

Tobacco is still widely consumed in a variety of different ways, mainly as smokeless tobacco and cigarette smoking. Cigarette smoking accounts for 65-85% of global tobacco consumption. Lung cancer is still the leading cause of cancer death in most high-income countries where data are available. An excess mortality is associated with smoking, with a 2-fold greater risk in smokers than in nonsmokers throughout middle age. Tobacco use induces stress by containing nicotine, triggering anxiety and elevated heart rate. Dependence on smoking creates a cycle of stress as individuals use it to cope up. Tobacco use can be countered through meditation and yoga. These practices promote mindfulness,

helping individuals manage stress and reduce the desire for smoking. Meditation enhances self-awareness, making it easier to break the cycle of dependence on tobacco. Yoga, with its focus on breath control and relaxation, contributes to stress reduction, making it an effective tool in tobacco prevention efforts. Combining meditation and yoga creates a holistic approach that addresses both the physical and psychological aspects of tobacco addiction, fostering overall well-being.

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Feedback about the Course

Design Thinking for social impact is a problem-solving approach centred around the user and their needs. Social innovation often involves collaboration between various sectors and stakeholders, including government, non-profit organisations, and the private sector.

TITLE: EFFECTIVE TEACHING OF BIOLOGICAL CHARTS AND MODELS TO DUMB AND DEAF STUDENTS

Division: **C Div**

Team Members

Name	SRN
Parth Jadhav	**02FE23BEC083**
Sagar Shirodkar	**02FE23BEC062**
Pooja Banakare	**02FE23BCS148**
Keertana Ari	**02FE23BEC107**
Md.aman.s.buddannavar	**03FE23BEC110**

Guide: **Dr. S. S. Nesaragi**

Point of View Statement:

Students learning in Ajay Deaf School Auto Nagar, Belgaum need proper methods to understand their subjects so as to pursue education and to achieve their goals. However, there is lack of new teaching methods to teach subjects in different way due to support from management and no proper cooperation from parents in spite of their interest to educate their children.

Abstract:

Description of the social challenge:

Our selected social challenge is Effective Teaching to dumb and deaf students using biological charts and models .

The stake holders are :

Primary Stakeholders : Students : Ganesh and Avinash AND Parents : Mr Manjunath and Mahantesh.

Secondary Stakeholders : 1,Teachers : Shilpa Gejji and SS attar

Tertiary Stakeholders: 1. The school management : Y S Peddennavar and Bhimappa H.

Pain points of the Primary Stake Holders:

Difficulty following verbal directions, Difficulty with oral expression, Difficulty with social or emotional or social skills.

Pain points of the Secondary Stake Holder:

Difficulty in explaining the concepts to the students.

Due to limited resources teachers often they have limited access to teaching materials and resources.

Standardized testing: pressure to prepare students for standardize test is main stress for the teachers.

Pain points of the Tertiary Stake Holder:

Effective communication with them.

Managing classes.

Communicating well - listening and sharing information.

At Ajay Deaf and Dumb School, we identified a pressing social challenge centered around the education of students with hearing and speech impairments. The primary concern is the limited accessibility and engagement these students face in traditional teaching methods, which heavily rely on verbal communication. This exclusionary approach often hinders their learning experience and overall academic development. Our goal is to address this gap by introducing innovative teaching methods that leverage visual charts and models. By doing so, we aim to create a more inclusive and effective learning environment, empowering deaf and mute students to overcome educational barriers and reach their full potential.

Feedback about the Course

The Social Innovation Course has been an incredibly impactful learning experience. The well-structured curriculum seamlessly blended theory with hands-on application, offering practical insights into addressing real-world social challenges. Collaborating with a diverse cohort, engaging with case studies, and undertaking our project at Ajay Deaf and Dumb School provided a good understanding of social innovation.

TITLE: **WEBSITE CREATION OF SIGN LANGUAGE**

Division: **C Div**

Team Members

Name	SRN
KARTHIKEYAN GEJJI	02FE23BEC036
OMKAR HALADANAKAR	02FE23BEC093
SARIKA KALLUR	02FE23BCS154
JIYA PATIL	02FE23BCS161
DEEPA KALMATH	02FE23BCS181

Guide: **Dr. S. S. Nesaragi**

Point of View Statement:

The children of Ajay deaf and dumb school needs a way to explore the technology and use it to pursue their goals and ambitions. However, there is lack of support from their parents due to personal challenges like low income, family environment etc. Despite of all the problems in their life, they have not lost their hope in pursuing their dreams.

Abstract:

American Sign Language (ASL) website, will be a futuristic website for the deaf-dumb or deaf-mute people as it provides a solution for people who face difficulty speaking and hearing. According to various surveys and stats from different deaf-mute organizations, 63% of the world's population is deaf-mute. To help such people, we devised the idea of ASL website. The fundamental functionality of this website is to convert verbal language to sign language (hand gesture). As communication takes place between ordinary and deaf-mute people, therefore, it will be easy for everyone to communicate. We are creating a user-friendly application that helps the user to have an approach to the translator very quickly

Feedback about the Course

This course of design thinking and social innovation has immensely helped us in instilling the attribute of empathy in ourselves. We feel grateful and euphoric as this course paved a way to numerous opportunities and helped us in learning and improving core skills like communication, team work, team building and so on which would definitely help us in our future endeavors.

TITLE: **SMART SHOES**

Division: **C Div**

Team Members

Name	SRN
Aishwarya Shirol	**02FE23BCS147**
Manasa	**02FE23BCS153**
Shridhar Patil	**02FE23BEC095**
Srujan	**02FE23BCS182**
Mahesh	**02FE23BCS189**
Ananya B S	**02FE23BBM018**

Guide: **Dr. S. S. Nesaragi**

Point of View Statement:

Children of Maheshwari Blind School which is located at Kolhapur Circle Belagavi needs way to navigate independently using smart shoes to pursue their goals and ambitions which they are dreaming for and can independently achieve them with some external support such as smart shoes, there is lack of support from their parents due to personal challenges such as low income ,lack of government facilities, parents feel helpless when they see their children in distress due to their disability ,inspite of will to support them to provide modern gadgets.

Abstract:

Sight is considered the most important sense and the blind people are observed upon with pity by others. Technology helps the blind people to communicate with the environment, the communication process and the dissemination of information has become very fast and on a wider scale to include all parts of the world which greatly affected to the human life, thus increasing the ways of entertainment and comfort and reduced suffering and hardship in many things. It is located at Kolhapur circle Belagavi, children face many problems while navigating and to do their daily routine.

We encountered this social because they challenge by community visit for the first time, we gone through the work that is done for the blind children and we selected social challenge which is helpful for blind children. After selecting this challenge we processed our further survey by selecting the ideas what can be done ,finally we thought of making smart shoes for those blind children. Finally we have completed our prototype (model) and tested in different situations and found that it is helpful for these blind children

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Feedback about the Course

It's good course,and we learnt many more new things through this course.

TITLE: VERTICAL FARMING BY HYDROPONICS

Division: **C Div**

Team Members

Name	SRN
KARTHIKEYAN GEJJI	02FE23BEC036
OMKAR HALADANAKAR	02FE23BEC093
SARIKA KALLUR	02FE23BCS154
JIYA PATIL	02FE23BCS161
DEEPA KALMATH	02FE23BCS181

Guide: **Dr. S. S. Nesaragi**

Point of View Statement:

{Farmers of Mandoli village}needs a way to{utilize the facilities available from farming technology } to {pursue their goals and increase their productivity. However there is lack of support from community and government. Due to government does not provide well maintained interest loan and community people does not provide well price to their product}

Abstract:

1.Description :- Vertical farming by hydroponics is an innovative agricultural method where crops are cultivated in vertically stacked layers using nutrient-rich water solutions instead of soil. This sustainable approach optimizes space, conserves water, and allows for year-round cultivation. Hydroponic systems provide precise control over nutrient levels, pH, and environmental conditions, efficient plant growth. This method minimizes the need for traditional farmland, reduces reliance on pesticides, and promotes resource-efficient agriculture, making it a promising solution for urban areas with limited space and water resources.

2.Location of the Challenge:- Mandoli

3.Stake Holders:-

a. Primary Stake Holder:

1.Seller: Arjun Patil

Phone no: 7090407191

2. Farmer: Mallappa Bagi

4.Pain Points:-

a. The unpredictability of weather affecting crop yield and quality.

b. Fluctuating market prices, rising input coasts, and debt pressures.

c. Difficulty in finding skilled labour for farm work.

d. Difficulty in Adapting to and affording new agricultural technologies

Gain Points:-

a. Access to and successful adoption of innovative farming technologies improving efficiency.

b. Access to relevant and timely information on best farming practices.

c. Recognition and pride in sustainable farming practices.

d. Harvesting success high quality crop yields.

5.Feedback about Prototyping and Testing :-

a. Hydroponic farms often emphasize their sustainable practices.

b. Hydroponic farms often serve as educational center.

c. Hydroponics green fodder maize is more nutritious than conventional green fodder maize

d. Hydroponics uses significantly less water than traditional soil-based farming, making it a more water-efficient & sustainable option, which is particularly crucial in regions with water scarcity.

e. Hydroponic farming can be more environmentally friendly & help reduce soil degradation & chemical runoff.

6. Process of defining the problem:-

Identifying the agriculture challenge where the farmers are using traditional agriculture method to grow crops and there is seasonal constraints climate change and limited land but by hydroponic tech system these can be solved and water consumed is very less .

Ideation:-

Magzines , Youtubetube videos, Demo model of vertical farming by Hydroponic.

Feedback about the Course

This course has helped us to Understand that there are lots of problem in this society which need to be solved like our problem mentioned above that farmers can use new technologies for farming as other countries are using and make there nation and their lifestyle better by boosting their economy . This course has helped us to interact new faces like farmers and other people and made us to learn new things which we were not having knowledge about it .and it is a good course make us to think and think for the solutions .

TITLE: "ENLIGHTEN MINDS: EMPOWERING SIDDHANT FREE BOARDING SCHOOL WITH EDUCATIONAL VIDEOS"

Division: **D Div**

Team Members

Name	SRN
Kaveri patil	02FE23BCS139
Vaishnavi Pardeshi	02FE23BEC039
Amul Ramdurg	02FE23BEC027
Santosh kambar	02FE23BEC033
Rahu Bambaladi	02FE23BEC006
Amul Ramdurg	02FE23BEC027

Guide: **Prof. Shivali Heggannavar**

Point of View Statement:

"The children's of siddhart free boarding school residing in shahapur area of Belagavi, needs a supportive materials for additional knowledge to gain certain helpful information that would make them stand in crowd. However, the theed for additional activity based knowledge is probably important four their personal development and inspite of the hurdles (poverty) they are facing, they are ready to study so as to increase educational Opportunities".

Abstract:

The children of siddhant free boarding school residing in shahapur area of Belgavi, lacks the material for additional knowledge such as extra informative books, videos etc.

So we the members of team-08 have decided to help the Children of siddhart free boarding school by providing them with videos on the topics which are not covered in their school and are helpful for them.

Because the need jor additional activity based knowledge is probably very important for their personal development. And this would help them to gain certain helpful information that would mako them stand in crowd.

Feedback about the Course

Students may find the social innovation course valuable as it provides a hands-on experience in problem-solving by engaging with people and understanding their issues. The interactive nature of the course likely fosters creativity and empathy, allowing students to develop practical solutions for real-world problems. Feedback might highlight the course's effectiveness in promoting critical thinking, collaboration, and a sense of social responsibility among students.

TITLE: **SAMRUDDHA FOUNDATION FOR DISABLED**

Division: **D Div**
Team Members

Name	SRN
Deepti Kumbar	**02FE23BEC042**
Diya Ankle	**02FE23BEC025**
Harsh Pawale	**02FE23BEC012**
Aditya Dhaded	**02FE23BEC051**
Vivekanand Chavan	**02FE23BEC091**

Guide: **Prof. Shivali Heggannavar**
Point of View Statement:

The physically disabled people of samruddha foundation is located in shahu nagar of belagavi need to support and way to market manufactured products in order to increase their sales of their products globally however, they are blind therefore this might also help them to creating awareness about self employment to the disabled blind people

Abstract:

The physically disabled people of samruddha foundation located in shahu nagar of belagavi need to support and way to market their manufactured products in order to increase sale of products so we the members of team -07 have decided to help the disabled people of samruddha foundation by creating website containing the information about the foundation and the available services in their foundation and distributing pamphlets to publishing their foundation however, they are blind therefore this might help them in creating awareness about the self employment to the disabled blind peoples.

Feedback about the Course

Design thinking is an extension of innovation that allows you to design solutions for end users with a single problem statement in mind. It not only imparts valuable skills but can help advance your career. It's also a collaborative endeavor that can only be mastered through practice with peers. Design thinking can help improve problem-solving skills and can be applied to a wide range of problems. It can help businesses be more innovative, differentiate their brands, and bring their products and services to market faster. Nonprofits are also starting to use design thinking to develop better solutions to social problems.

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TITLE: CHARTS AND VIDEOS FOR DEAF AND DUMB STUDENTS

Division: **D Div**

Team Members

Name	SRN
Rachana Naik	02FE23BEC099
Pooja Biradar	02FE23BCS155
Vikas Patil	02FE23BEC076
Ashok Kumar Kesarur	02FE23BEC031
Asha	02FE23BEC089
Rahul jadhav	O2FE23BCS152

Guide: **Prof. Shivali Heggannavar**

Point of View Statement:

The students of "Government deaf and dumb school" of Azam Nagar Belagavi needs a way to understand the syllabus and concept of their studies in a better way. However, they have each of financial support, inspite of this students shows their deep interest in learning.

Abstract:

There are many deaf and dumb students in our country our theme is to helping students who are deaf and dumb facing challenges in regular schools. It we look at the problems they are facing in daily life is   difficult in communication and difficulties in talking by studying these challenges.

The study explores new ways to make their learning experience better. By using special teaching methods and technology The goal is to make schools welcoming ensuring that every student, regardless of their abilities, gets a fair chance to succeed.

We hope to tell why it is important to use special ways of teaching and tools to help them to learn better by making Basic charts of certain languages like "Kannada" and "English" by using sign languages which can understood by the children and is easy to the teachers to teach and explain the students we made a animated video by using technology

Feedback about the Course

It helps us to know more about our society and problems faced by the people.This course will help us to improve our thinking skills and finding effective solutions for the problems observed.And this course is providing us a good platform where we can help the needy ones.

TITLE: DEVELOPING WEBSITE FOR DEAF AND DUMB CHILDREN

Division: **D Div**
Team Members

Name	SRN
Abhinav Ankalgi	**02FE23BCS026**
Manojna S	**02FE23BCS122**
Srusti Jadhav	**02FE23BCS038**
Shreeya Nikkam	**02FE23BCS037**
Dhruv Patil	**02FE23BCS055**

Guide: **Prof. Mallesh Sanjeevannavar**
Point of View Statement:

Children of deaf and mute need a way to utilize the facilities available at school to pursue their goals and ambitions. However, there is a lack of support from their parents as well as teachers due to personal challenge that they face in day to day life such as communication problem, lack of understanding written language, lack of support etc.

Abstract:

Social challenge we selected is Government deaf school which is located in Nehru nagar Belagavi The reason behind selecting this social challenge is because it is more effective when compared to other social challenges and the number of people is benefited from this social challenge is more. To understand the way of living of the deaf and dumb Students .

They cannot understand none of our lip movements, can understand only the hand signs and still facing the difficulty in understanding some of the hand sign. Some of their teacher witnessed that many were facing difficulty in understanding the words written on the board came to a conclusion to provide some beneficial videos prepared by us.

 The videos will be prepared in such a manner that the words displayed on the screen will be explained by the hand signs to make them understand. Around 140 students in the Deaf School. As we have planned to provide them the chat of hand signs and the videos on the practice of hand signs which would be more helpful for them to understand the local languages and skills for communication.
Key words: Deaf and dumb Students, skills for communication, lip movements, website

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Feedback about the Course

The Design Thinking and Social Innovation class in engineering has been an eye-opening experience for us. The course design effectively blends theory and practical application, fostering a creative mindset. The hands-on projects have allowed us to apply design thinking principles to real-world problems, enhancing our problem-solving skills. The incorporation of social innovation adds a meaningful dimension to the course, making us more conscious engineers. Overall, the course has been engaging and valuable, preparing us for the dynamic challenges in our field.

TITLE: DEVELOPING BRAILLE KEYBOARD FOR BLIND PEOPLE

Division: **D Div**

Team Members

Name	SRN
Abhinav. A . Angadi	**02FE23BCS064**
Bhagirati.Bhovi	**02FE23BCS068**
Sakshi.N.Gaitonde	**02FE23BCS075**
Sanjana.A.Patil	**02FE23BCS082**
Sadiya Naz.Kaladgi	**02FE23BCS130**

Guide: **Prof. Mallesh Sanjeevannavar**

Point of View Statement:

Blind individuals of Samruddha foundation of Shahu Nagar, Belagavi, needs a way to get higher education and utilize modern technology to get jobs in future and stand independent. However, there is lack of support from parents, universities and personal challenges like no specified teaching skills, lack of technical equipment, poverty, difficult in travelling, lack of scribers and social awareness inspite of their interest towards education and becoming independent

Abstract:

We were instructed to visit four community visited and one of them was selected, the selected social challenge was SAMRUDDHA FOUNDATION which is helping blind individuals for pursuing degree after 10th standard. But them or their families are not able to maintain the education expenses so they do part time jobs to fulfill it and foundation also plays a key role in fulfilling their wishes and dreams.They shared some of their major challenges, including difficulties in finding volunteer scribes for exams, financial instability due to low income and balancing expenses, a lack of support for their various business ventures, despite participating in national-level activities, they still struggled with recognition. Issues with donor trust, travel constraints, and the absence of essential support systems were also raised. On our second visit, the foundation opened up further, making us feel like part of their community. They elaborated on additional problems they face, such as the need for voice recording for lectures, a lack of marketing knowledge to sell their products at competitive prices, social pressures, issues with

bullying and harassment, a lack of caretakers in institutions, challenges in completing assignments independently due to blindness, examiner pressure during exams, insufficient family support, a lack of societal awareness about blindness, and the unfortunate reality of some individuals taking advantage of their disabilities. The Samruddha Foundation's dedication to addressing these issues is both inspiring and vital.

Key Words: blind individuals, societal awareness, financial instability, education expenses

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Feedback about the Course

It gave us a good opportunity to work in a group by understanding each other's perspective over a topic. It also helped work over a challenge in a group.

TITLE: **DEVELOPING AURA FOR BLIND PEOPLE**

Division: **D Div**
Team Members

Name	SRN
Md Danish Shamsher	**02FE23BEC112**
Sumedh Chitnis	**02FE23BCS043**
Tejas Tashildar	**02FE23BCS107**
Swati Nandi	**02FE23BCS005**
C R Pratima	**02FE23BCS025**

Guide: **Prof. Mallesh Sanjeevannavar**
Point of View Statement:

Children of maheshwari blind school, need a way to ease their life at school and outside the school to pursue their education, goals and ambitions. However, their is lack of support from society and as well as from their parents. They also face challenges like being ignored or underestimated all the time. So, modern technology can be used to help blind students in their academics and future needs.

Abstract:

This project focuses on the development of an innovative audio assistant device tailored for blind individuals in a school setting. The aim is to empower visually impaired students with a technology that facilitates information retrieval and communication within the school environment. The audio assistant device will integrate voice recognition technology, allowing users to interact with the device through natural language commands and access educational materials which include features such as reading aloud textbooks. The user-friendly design aims to ensure that the device is accessible to individuals with varying levels of technological familiarity. Now a days many people suffer from vision impairment they frequently require assistance with daily activities. Braille was once used by blind people to read, but it is gradually becoming obsolete. In today's technological era, blind readers can read electronic documents using screen reading software. However, due to the high cost of that software, not all blind readers can buy it. This is where the voice assistance started in which text or command from users are expected and tasks are completed using this method. Voice assistant uses artificial intelligence and voice recognition to provide users with accurate and fast information. This abstract outline the foundation of a transformative project that aims to bridge accessibility gaps through the integration of cutting-edge technologies into a user centric audio assistant device for the visually impaired. The implementation and impact of this project involves the visually impaired individuals to ensure that the design meets diverse needs. Through user testing and feedback loops, the device will be refined to maximize its effectiveness in real world scenarios. The anticipated impact of this audio assistant device is to enhance the independence and quality of life for visually impaired individuals, fostering inclusivity and accessibility. The project aligns with the principles of universal design, aiming to create a solution that benefits a broad spectrum of users with varying degrees of visual impairment.

Feedback about the Course

Design thinking is an innovative process centered by social problems faced by people from different sector's and it deals with emphasising empathy, empathy, creativity, and experimentation. It can have significant impact on student engagement and success.

TITLE: **SMART WHITE CANE STICK**

Division: **D Div**

Team Members

Name	SRN
Khushi Khanadali	**02FE23BEC073**
Arpita Yalamalli	**02FE23BEC049**
Vaibhav Thabbannavar	**02FE23BCS067**
Basavanagouda Patil	**02FE23BCS047**

Guide: **Prof. Mallesh Sanjeevannavar**

Point of View Statement:

Members of Chiguru Seva foundation need a way to travel independently without being liable on other individuals to become independent enough to move place to place. However there is lack of support from the society people. They face personal challenges like being isolated, being liable and no freedom inspite their strong will to live their lives to fullest.

Abstract:

Our social challenge is "Locomotion of the blind people independently". We are focusing on blind people how they face difficulty in their daily life and how to overcome all those problems faced by them. " CHIGURU SEVA FOUNDATION" is located in Mahantesh nagar, Belagavi. Laxmant Tarkar the founder of this foundation. They face problems in locomotion and inspite of that they are highly motivated.

While defining problem statement our team came up with many statements and after combining all the statements we finally concluded with a better problem statement, same in the ideation process. After finalizing all the ideas 4 ideas were selected in the category of can be done and doing the factors vs suitability table at last we got best solution as smart white cane stick.

At last the prototyping was proceeded by the team studying the working of prototype and listing all the items required for the prototype

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Feedback about the Course

This course was new for or group, in fact in beginning we thought this course would had be difficult for us but gradually we came to know that it was quite interesting, as the goal of this course was to make us to see the outside world rather than gaining bookish knowledge, by making visit to those who are in need of some thing or facing some problems, analyzing their problems throughout the visits and finally making a better solution for them in order to not to face such problems.

TITLE: EMPOWER INSIGHT: NAVIGATING KNOWLEDGE THROUGH ACCESSIBILITY

Division: **D Div**

Team Members

Name	SRN
Anu Patil	02FE23BCS008
Anushka Singh	02FE23BCS099
Harshit Baliyan	02FE23BCS092
Prakhar Shrestha	02FE23BCS090
Pratik Kolhapure	02FE23BCS010

Guide: **Prof. Mallesh Sanjeevannavar**

Point of View Statement:

Children of maheshwari blind school, need a way to ease their life at school and outside the school to pursue their education, goals and ambitions. However, their is lack of support from society and as well as from their parents. They also face challenges like being ignored or underestimated all the time. So, modern technology can be used to help blind students in their academics and future needs.

Abstract:

Our project is all about helping disabled students at Samarthanam Trust, who come in groups every three months to learn skills for jobs and independence. We noticed that these students faced challenges in learning basic English, and they were a bit scared of it. So, our team of five members decided to create a website to make learning English more enjoyable and less intimidating.

The main goal was to break down the barriers that students faced when learning English. We wanted to create a playful online platform to teach them essential English skills. The website is designed to fit the specific needs of the disabled students at Samarthanam Trust, helping them learn English in a fun and interactive way. Our hope is that by doing this, we can support these students in gaining the language skills they need to find good jobs and become independent contributors to society, just like everyone else.

In a nutshell, our project shows how creative thinking and teamwork can make a positive impact on the lives of disabled students. By making English learning enjoyable and accessible, we aim to contribute to the broader mission of Samarthanam Trust and promote the idea that well-designed solutions can make a real difference in the lives of people facing challenges.

Feedback about the Course

It was good experience with team members and exploring the aided students

TITLE: DISCOVER CREATIVE LEARNING

Division: **D Div**

Team Members

Name	SRN
Bhavana S. Ramageri	**02FE23BEC002**
Rohit A. Aralimatti	**02FE23BCS04**
Vaishnavi R Rajagoli	**02FE23BEC04**
Neha B. Patil	**02FE23BEC00**
Prasanna M Kadrolli	**02FE23BCS044**

Guide: **Prof. Mallesh Sanjeevannavar**

Point of View Statement:

Children of Government school needs a way to improve the attendance and awareness about education to pursue goals, knowledge higher education and career. However,there is lack of support, communication skills,no proper guidance from the family due to low income, illiteracy of parents,no communication skills.

Abstract:

Social challenging that are faced by government schools are infrastructure ventilator fullstock there were also no bench and proper light source the students who were from other community and were unable to understand the things though by the teachers because of this attendance is very low of the students there is no digital literary location is as followed shivakalpa plaza beside sampath patil hospital vadagaon , Belagavi the primary stake holder is the students and secondary stake holder is parents tertiary is the principal

 Pain points are as followed lack of motivation , balancing work and study , communication behaviour , financial burden, proper practice, students performance

, pressure, understanding problem.gain points are followed pursue degree and help the people to be independent ,work ethic , responsible and confident , time management,spark career choice building network .as the title of the project itself says that creative learning so we decided to create a projector so that will help them to came across there doubt

Feedback about the Course

Excellent

TITLE: **ECO-COLLECT**

Division: **E Div**

Team Members

Name	SRN
Akash Karalingannavar	02FE23BCS132
Mahananda Ningappa Magadum	02FE23BCS065
Mallamma.V.Goddemmi	03FE23BEC047
Shreeharsh Laxman Surekar	02FE23BCS088
Sujal Ainapure	02FE23BCS100

Guide: **Prof. Shweta Madiwalar**

Point of View Statement:

Workers in ghoushala in kolikopa need a way to utilise the new technologies available in agriculture to pursue their goals and ambition however there is lack of support from community or society and due to busy schedule inspite of these problems they manage to do the dung collection

Abstract:

The social challenge which was found was the problems of dung collection in ghoushala and other cattles. The ghoushala is located in Kolikopa Belgavi, Karnataka. The pain points are the smell of bung ,time consuming work ,less profit in ghoushala and the gain points are Want to get more productive from ghoushala, manage time, give good nutrition for cow. And the stake holders are primary stake holder is farmers the secondary stake holder is worker in ghoushala and tertiary stake holder is common man

Ideation was creating a model which helps the works and farmers to clean or collect dung prototyping the machine is to be made that collects the dung by it self in less time testing it collects the dung effectively.

Feedback about the Course

We thoroughly enjoyed the "Social Innovation and Design Thinking" course. The engaging discussions and real world applications made the concepts come alive. The clarity with which the core principles were explained greatly enhanced my understanding. The practical projects allowed me to apply theory to tangible situations it helped us to solve the the issue and problem faced by people

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TITLE: **VIBERO SEIVE**

Division: **E Div**

Team Members

Name	SRN
Bhumika R. Nagarali	02FE23BCS076
K. S. Shreyash	02FE23BCS119
kushal M. Itnal	02FE23BCS015
Madhura M. Patil	02FE23BCS045
Nandini D. Mohangekar	02FE23BEC048

Guide: **Prof. Shweta Madiwalar**

Point of View Statement:

Farmers of Khanapur village needs a way to utilise the facilities available at modern market to pursue their goals and ambitions. However there is lack of support from the government and due to challenges like low funding agencies, market fluctuation and lack of modern technology.

Abstract:

The social challenge choosen by our group is the grain separator. It is useful for the farmers as well as the common people . Where the harvested grains contains stones and small particle dust . So the model will help clean the harvest grains efficiently without wasting time by doing it manually.

Khanapur road, Piranwadi is the location of the social challenge. Farmers are the primary stake holders , food producers are the secondary stake holders and the common people are ternary stake holders. Pain points of the Primary stake holders are Technology adoption, Pests diseases, Labor shortages. Pain points of the Secondary Stake Holder are Quality control, Regulatory compliance, Consumer preference. Pain points of the Tertiary Stake Holder are Food security, Climate adaptation, Environmental conservation.

Farmer and all other common people manually remove the stones and small particles which takes alot of time and have neck problem etc. So to reduce the time we have made a model which will do this work. And after the brainstorming process we decided to make VIBRO SIEVE model which contains two layers of seive and a motor fixed to it ,which when started vibrates and separates the stones from the grains. A prototype contains all the stake holders and common people using VIBRO SIEVE. And we have tested the model by using rice grains and it has totally worked.

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Feedback about the Course

This was a very unique course. It made us learn about the society issue And was very interesting to do the social work. It made us learn how to interact with new people and understand their problem. This course also helped us to teach how to do the work effectively in team and approach to address the problem. we learned how to develop solutions for a problem. Overall we enjoyed the design thinking for social innovation course throughout the semester.

TITLE: HUMAN HAIR AS A NUTRIENT SOURCE FOR HORTICULTURE CROPS

Division: **E Div**

Team Members

Name	SRN
Shreya Gandroli	**02FE23BCS050**
Vaidehee Kumari	**02FE23BEC067**
Nayan Kanbarkar	**02FE23BEC055**
Kiran B. Patil	**02FE23BCS129**
Hemantha Kaval K. T.	**02FE23BCS091**

Guide: **Prof. Shweta Madiwalar**
Point of View Statement:

Farmers of Yellur village need a way to utilize the facilities available at the field. To pursue their goals and needs. However, there is a lack of support from government due to challenges like low GDP of the country, huge population of the country, climate changes, market fluctuations, lack of funding systems and modern technology.

Abstract:

Farmers are not acquainted with advanced agricultural practices. This holds them back from utilizing the proper technical resources in farming and other practices. In order to reduce their problems, farmers should be educated about using big labour machines. If they get familiar with the mechanism of technical devices, farmers can eliminate several problems faced by them. yellur village near belagavi city. Mahadevi, Renuka, Kalappa are primary stake holders. Gursiddappa and Siddanna are secondary stake holders. Chidanand is the tertiary stake holders.

Pain points of the Primary Stake Holders: High-cost fertilizers effect farmer's budget, effect quality of crops, reduce soil's natural ability, financial stress, whether related concerns, market volatility, workload pressure. Pain points of the Secondary Stake Holder: Market uncertainty, dependency on farmer's success, research funding challenges, environmental concerns Pain points of the Tertiary Stake Holder: Consumers may experience anxiety about the safety of agricultural products, including issues related to pesticides, additives, or contamination, leading to trust issues in the food supply chain. Gain points: Adopting sustainable farming practices, Enhancing productivity, Adoption of modern farming techniques and environmental stewardship.

Low-cost fertilizers can benefit farmers by reducing their input expenses, making agriculture more economically sustainable. We can contribute to solutions for high-cost fertilizers by researching and promoting sustainable agricultural practices. We can explore alternative, cost-effective fertilizers, advocate for government policies supporting affordable farming inputs, or engage in community projects that focus on efficient fertilizer use. Additionally, collaborating with agricultural experts and leveraging technology for precision farming can enhance productivity while minimizing costs.

The implementation of human hair as fertilizer faces challenges such as social stigma, concerns about hygiene, potential cultural taboos, and the need for proper processing to avoid nutrient imbalances or contamination. Additionally, effective communication and education are crucial to address misconceptions and promote acceptance within the community.

Feedback about the Course

The course help students to improve their problem-solving skills, thinking skills and to design and implementation of new solutions that imply conceptual, process, product, or organizational change, which ultimately aim to improve the welfare and wellbeing of individuals and communities.

TITLE: **INSECT RESISTANT AGRICULTURE FARMING**

Division: **E Div**

Team Members

Name	SRN
Shrikant M Angadi	**02FE23BCS023**
Anup S Dundur	**02FE33BCS041**
Sudarshan Honnappanavar	**02FE23BCS046**
Shreya hiremath	**02FE23BCS079**
Anjali Kolavi	**02FE23BCS058**

Guide: **Prof. Shweta Madiwalar**
Point of View Statement:

Farmers of Basavan Kudachi,Belagavi needs a way to utilize the modern technologies available in agriculture to achieve theire goals and ambitions . However ,there is lack of support from the government ,lack of knowledge about the modern technological farming due to personal challenges like low income,frequent changes in the climate ,destruction of the crops by the insects and many more.

Abstract:

Your pain points are the unpredictability of weather affecting crop yield and quality Fluctuating market prices, rising input coasts, and debt pressures and Difficulty in Adapting to and affording new agricultural technologies.

gain points are Access to and successful adoption of innovative farming technologies improving efficiency, Recognition and pride in sustainable farming practices.

Primary Stake Holder:

FARMERS: Mallikarjun. Angadi

Secondary Stake Holder:

WHOLESALERS AND RETAILERS: Shrishail . Methyalmath

Tertiary Stake Holder:

CONSUMERS: Ajay H

We done the community vist in BasavanKudchi, Airport Belagavi

The problem in disease-resistant plants involves developing robust resistance against various pathogens while considering factors like genetic diversity, environmental conditions, and evolving strains of pathogens. Achieving broad-spectrum resistance without compromising plant health and yield is a key challenge in plant breeding and biotechnology. Prototyping disease-resistant plants typically involves genetic modification or breeding techniques to incorporate resistance genes from other species into the target plant. This can be a complex process involving multiple iterations to achieve the desired level of resistance without compromising other essential traits of the plant. Techniques like CRISPR/Cas9 have also shown promise in developing disease-resistant plant prototypes more rapidly and precisely. ideation are Genetic Modification: Introducing genes that confer resistance to specific diseases. Breeding: Crossing plants with natural resistance to develop new varieties. Enhancing Immunity: Stimulating a plant's natural defense mechanisms through biological or chemical means. Biocontrol Agents: Using beneficial microorganisms to protect plants against pathogens. Precision Technologies: Employing advanced tools like CRISPR/Cas9 for precise gene editing.

Feedback about the Course

It is very good for modern agriculture farming to get rid from insects and many diseases and it will help farmers to get more yield and less time management and smart agriculture, and this is also helps in getting good profit.

TITLE: **SCHOOL TEACHING SYSTEM**

Division: **E Div**
Team Members

Name	SRN
Aditya Patil	**02FE23BCS137**
Shivaraj Pujari	**02FE23BEC020**
Chinmay Dhawale	**02FE23BEC111**
Pavitra Meti	**02FE23BCS187**
Sanjana Ankali	**02FE23BEE054**
Ruzman Sanadi	**02FE23BCS162**

Guide: **Prof. Shweta Madiwalar**
Point of View Statement:

Students of Govt kannada senior primary school Anagol are in need of new innovation teaching methods to improve their education however , there is lack of support from school & parents due to personal challenges like low income & lack of facility in school in spite of their interest to educate childrens.

Abstract:

A Glimmer of Hope in Angol's Government School

Stepping into the Angol Government School, a stark reality unfolded: a shortage of dedicated teachers, outdated technology, and perhaps most disheartening, a palpable lack of enthusiasm for learning. Yet, amidst these challenges, a spark of hope ignited. Our journey led us to tackle a crucial topic - hydropower - not through dry textbooks, but through the captivating lens of a working model.

Faced with limited resources and a potentially disengaged audience, we knew traditional methods wouldn't suffice. We needed to break the mold, to bridge the gap between theory and tangible experience. That's where our hydropower model came in. This interactive, hands-on learning tool promised to transform the classroom into a laboratory, where abstract concepts would come alive through experimentation and discovery.

Our goal wasn't simply to fill the void of absent resources, but to rekindle the joy of learning within these students. We aimed to show them that even the most complex scientific principles could be grasped, not just through rote memorization, but through active participation and the thrill of understanding the world around them. In the face of adversity, we sought to ignite a passion for knowledge, one working model at a time.

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Feedback about the Course

It was excellent experience in this course it gave us a Courage to stand on dice and speek ,we learnt about unity power and what is mean by empathy and it's brief information and how to create prasentetion ect

TITLE: WEBSITE FOR MEDICAL RECORDS

Division: **E Div**

Team Members

Name	SRN
Sohan Chougala	**02FE23BEC019**
Shreya Kalal	**02FE23BEC084**
Shweta Thakkannavar	**02FE23BEC080**
Prashant Pattar	**02FE23BEC105**
Praveen Ramatirth	**02FE23BCS172**

Guide: **Prof. Shweta Madiwalar**

Point of View Statement:

Patient of Hagala village need a way to maintain their medical records at hospital to get proper treatment and healthcare. However there is lack of facilities and technology to maintain records in hospital.

Abstract:

Suvarna Healthcare Centre is a hospital situated in Halaga village of Belagavi whose intention is to heal patients. Here, we identified a challenge and accepted to work on it. The social challenge we found was non-maintenance of medical records at the hospital leading to many problems as written in the report. The effects of having this challenge can be known by the questionnaire on stakeholders. The social challenge was decided to be solved by implementing a proper solution that is creation of website.

The process of solving this challenge is done through analyzing the design thinking process which includes various stages such as empathy, define, ideate, prototype and test. To address this challenge, we propose the implementation of creation of website that has various features, which uses advanced technology to store and maintain the medical records of patients. The solution aims to help the stakeholders by making them available, the data stored in the website. The website is made in regional language apart from English and is built so that it would work on other networks as well.

Based on the ideas generated during the ideation process, we developed a prototype for our social challenge. As mentioned above the prototype is the creation of website that will take the medical data entered and store the data so that it will help out both the patients and doctors to have clarity in the treatment process. We conducted testing of the prototype in the presence of the stakeholders, taking into consideration all the concerns. clarity in the treatment process. We conducted testing of the prototype in the presence of the stakeholders, taking into consideration all the concerns.

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Feedback about the Course

The DTSI course is a newly introduced course to us. Though we didn't know what actually it was in the beginning, now after working on this project we can observe some changes in us. Team coordination: We came to importance of team work and how to cooperate with everyone and sharing our thoughts. Preparation of ppt's and presenting it is also improved. Communication skills are developed. How to actually analyse a social challenge and what process to be followed in order to solve it. The stage fear is reduced and the way of presenting ourselves such as body language, courage are improved. We came to know what actually social innovation means and how to take initiatives and steps to make impactful innovation in the society.

TITLE: **WEARABLE DEVICES FOR THE BLIND CHILDREN'S**

Division: **E Div**
Team Members

Name	SRN
Netravati Badni	**02FE23BCS170**
Shreyash Muchandi	**02FE23BEC064**
Sanmati Patil	**02FE23BBM019**
Arun Magadum	**02FE23BEC086**
Sharnu Angadi	**02FE23BEC072**

Guide: **Prof. Shivanand Mendigeri**
Point of View Statement:

Students of Maheshawari Blind School need a salution for their navigation in the city to reach schools and other purpose.However there is a lack of support from school and government. Inspite of their interest to educate the BLIND CHILDREN.

Abstract:

"NAVIGATION FOR BLIND PEOPLE" we observed many children , women, men and all types of people who were totally blind and partially blind . we Accomadations to the students .

They are been provided the extra curricular activities while staying away from parents or the guardians . They also teach the basic computer knowledge for the children. They also teach how to write and read with the help of Braille script which was discoverd by Louis braille. They also teach skill development and other social activities. Many people who are blind and facing general problems can be benefitted from such foundations. It takes some time to understand the problems which is been faced by the blind people and other partially blind.

Feedback about the Course

We got a positive response from THE TRUST or MAHESHWARI blind school. It is good and enhances the user mobility and safety. blind children are said that it has been pretty positive! And great way to track activity level, monitor health, and even enhance safety . And parents appreciate the ability to keep an eye on their kids. And we are also means the community of blind children and society staying active and motivated to us.yes it is!! But need to check with the semi blind people also. We can technically spread awareness such as by creating social media accounts about the foundation so that people get to know more about the wearable device.

TITLE: DEVICE FOR DUMB,DEAF AND BLIND... (SAMARTHANAM TRUST)

Division: **F Div**

Team Members

Name	SRN
Soujanya Poojari	**02FE23BCS080**
Reesha Koli	**02FE23BCS128**
Salabanna khichadi	**02FE23BCS033**
Jeevan Bennur	**02FE23BCS071**
Ramesh Kenchappanavar	**02FE23BCS131**

Guide: **Prof. Shweta Madiwalar**

Point of View Statement:

The disabled students of Samarthanam trust Tilakwadi, Belagavi needs a effective way to utilize the present technologies / facilities to reduce the difficulties faced by them during day to day life , there by they can save their time and invest much of their time in studying and can achieve their aims and goals .However, the disabled students face problem in communicating and also there is a lack of support from their parents due personal challenges and a limited support from the government to provide present technologies / facilities . In spite the students are willing to learn about the present technologies .

Abstract:

The challenge selected by our team is 'Samarthanam Trust for the disabled'. This is a trust which has started initiative to help the disables like blind, deaf, dumb and handicapped. This trust was first started by Mahantesh G Kivadassanvar and its main branch is in Bangalore and they have started mary branches in other cities, states and ever at the international level. They help the disables who are unable to afford their basic education or to pursue their dreams.

When we visited the trust and communicated with the disabled we understood the problems faced by them in their everyday life. One of the problem we Observed was with the dumb people who were unable to express their basic emotions or needs. Though they use sign languages sometimes and it becomes difficult for the other people to understand then.

So we decided to make a device which can help them to some extent to express their emotions or needs. Our device works on the remote. Wher ary number is pressed the particular audio is played. we have added some basic statements which is required.

Feedback about the Course

The course is a very good base for engineering as it helps us know what engineering is.

Also makes us realise about the problems in the society.

TITLE: **HIV VICTIMS**

Division: **F Div**
Team Members

Name	SRN
Keerti Bharanatti	**02FE23BCS060**
Ankit Raj	**02FE23BCS093**
Pooja Managuli	**02FE23BCS072**
Sushil Chandaragi	**02FE23BCS136**
Soumya Suresh Nidoni	**02FE23BCS057**

Guide: **Dr. Deepak Patil**
Point of View Statement:

Students of Nandan Makkal Dham Belagavi, need a way to Avail proper basic amenities like access to medical care, Anti- retrovial therapy (ART) regular monitoring of their health and support from healthcare professionals in order to lead a healthy and normal life pursue their goals and Ambitions. However, they do not have absolute support from their parents, who are no more and have expired due to HIV. Children do not get proper education because they do not go to good education Institute, lack of support from friends, family and community, as well as access to proper Health Care. Financial dif culties and concerns about relationship, and future planning are common challenges faced by HIV positive individuals.

Abstract:

The selected social problem is on HIV victims of Nandan Makkal Dham which is located in Sadashiv Nagar, Belagavi. Primary Stake Holders are PRIYA M(student) KASTURI BANGER(caretaker) and Secondary Stake Holders are KALAPPA (milkman) and DRUG DISTRIBUTERS and DONATORS and Tertiary Stake Holders are NEIGHBOURS and EDUCATION INSTITUTIONS.

#Pain points are

• Miss their parents.

• Face mental pressure in schools.

• Can't dream big about future.

• They won't be able to live longer.

• Face education problems.

• No government facilities.

• Lack of motivation and anxiety.

#Gain points are

• Will be provided proper medical facilities.

• Peaceful environment.

• Availability of all basic necessities like books and stationery.

• Good and caring caretakers.

• Many students of same age are present and can play with each other and feel comfortable.

• Celebrating Festivals together.

HIV victims are reluctant to face the society and are unable to ask their needs to people and many people suffering from this disease die because of

lack of medical facilities so by helping them little can be

helpful for them to get access to proper medical

treatments which can prolong their life little more. The website can help them spread awareness and also ask their basic needs and get donations through it.

Feedback about the Course

In this course we are able to identify a social challenge and try to find a solution and solve the problem. This course increases our thinking ability and understanding the problem and also our problem solving skills.

TITLE: **WELL VENTILATED CRATE**

Division: **F Div**

Team Members

Name	SRN
Abhishek N. Sutar	**02FE23BCS123**
Maruti Haval	**02FE23BCS081**
Aishwarya Hammigi	**02FE23BCS012**
Bhumika Chavan	**02FE23BEC037**
Shivraj Yadavannavar	**02FE23BCS134**

Guide: **Dr. Deepak Patil**

Point of View Statement:

Vegetable vendors of Belgavi Bazaar (Khade Bazaar), need a economical device to store left out vegetables in fresh condition, in order to get good price for their vegetables and there by increase their regular profits.

However, they face financial problems and are less educated, sometimes they don't get support from their family or from government or any organisation. They also have to sit in unhygienic places which sometime can cause various diseases or affect their health.

Abstract:

The social challenge is that the Vegetable vendors make loss because of wastage of vegetables as the cannot store it properly and also society don't get fresh produce. Stake Holders are Vegetable vendors and The family of Vegetable Vendors which come under Primary, Farmers and Market Yard come under Secondary, and Consumers and Co-operation come under Tertiary.

Pain points are Facing competition from other vendors and supermarkets, Unhygienic environment, Unfavourable weather condition. Gain points are Satisfaction of providing fresh and healthy produce to people, Promoting healthy eating habits and sustainability in the community, Vendors may offer unique varieties of vegetables not commonly found in supermarkets.

Idea is to make a Well Ventilated Crate which can store the vegetable for long period of time in fresh condition so that Vegetable Vendors sell the fresh produce and increase their profit.

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Feedback about the Course

This course makes us expose to real-time problems making us time better and contribute to the society.

TITLE: **APP CREATING**

Division: **F Div**
Team Members

Name	SRN
Sanjana M.	**02FE23BCS112**
Shubham V.	**02FE23BCS105**
Ateeq M.	**02FE23BCS006**
Vivikta K.	**02FE23BEC056**
Apoorva Y.	**02FE23BEC052**

Guide: **Dr. Deepak Patil**
Point of View Statement:

Specially abled children at the govt school for dumb and deaf children,bauxite road Belagavi , need a way to utilize the modern technology to bridge the communication barrier among the dumb students and gain equal recognition in the society as other students. Due to this communication barrier, problems arise related to their education and social stigma is developed. They feel less confident and discouraged

They can dedicate their maximum time towards studies and personal development and reach their goals

Abstract:

- Primary Stake Holder:
    - Physically Challenged People
    - Caregivers/Family
- Secondary Stake Holder:
    - Medical professional
    - Donors/Distributers
- Tertiary Stake Holder:
    - Government Agency
    - Education Institute
- Pain Points:
    - Communication barrier
    - Educational challenges
    - Coordination issues
    - Emotional & mental Strain
    - Social stigma
- Gain Points:
    - Adaption to diverse talents
    - Collaboration and support by the trust
    - Fostering a positive environment & celebrating achievements with the physically challenged community
- IDEATION:
    The finalized idea for this particular social challenge is to create an app . This helps the deaf and dumb students in regards of education as well prevents the communication barrier and the problems faced by them in daily life , hence contributing to social integration.
- PROTOTYPING AND TESTING:
    The app made can be downloaded in form of apk and be used without internet once downloaded .

Feedback about the Course

It made us aware of the social problems in the society and a way to empathize with the sufferers.

Create solutions innovatively contributing to social integration.

TITLE: LACK OF MENSTRUAL HYGIENE IN SCHOOL NO. 14

Division: **F Div**

Team Members

Name	SRN
Ishwari D. kamble	02FE23BCS126
Sumit Kuchanure	02FE23BCS109
Shreyas S. Savant	02FE23BCS078
Sneha Kundasomannavar	02FE23BEC054
Pavitra Gundupkar	02FE23BEC004

Guide: **Dr. Deepak Patil**

Point of View Statement:

Female students of Jail school no 14, Vadagoan Belgaum, need a way to effectively utilize the given sanitary products and access to clean washroom available at school to reduce the problems face by them regarding menstrual hygiene ,to lead a healthy life and happy schooling. However, there is lack of support from their parents due to personal challenges like low income and lack of awareness about menstrual hygiene, there is no open discussion between parents and their daughters, parents are shy to discuss the topic of menstrual hygiene, also there is no open discussion with their parents.

Abstract:

This study addresses the critical issue of female students lacking menstrual hygiene education in government schools, with a specific focus on Government School No. 14 (Jail School, Vadagoan Belgaum). The social challenge encompasses a dearth of information and access to menstrual products, adversely affecting the well-being of female high school students. This problem extends beyond the school premises, impacting the broader community. The primary stakeholders involve the female students and their parents, while secondary stakeholders include teachers and cleaning staff. Tertiary stakeholders comprise doctors, people in the school's vicinity, and even male students.

The pain points associated with this challenge are numerous, ranging from physical discomfort such as excessive bleeding and menstrual cramps to the potential risks of infections and diseases due to a lack of proper hygiene. Academic setbacks caused by missed classes further compound the issue.Addressing this challenge presents an opportunity for female students to learn about their bodies, fostering a sense of maturity and breaking taboos surrounding menstruation. Menstrual education not only promotes gender equality but also enhances peer support and improves overall school facilities. Empowering girls with knowledge enables them to take charge of their lives.

Ideation involves brainstorming potential solutions, followed by the creation of prototypes to address the identified challenges. These prototypes are then tested within the school community to assess their effectiveness in improving menstrual hygiene education and access to necessary products. Continuous refinement and feedback loops are crucial in the iterative process of developing sustainable solutions.

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Feedback about the Course

It is a very helpful subject, we get a very good experience of how to deal with a problem on ground level and thus help in doing good for our society

TITLE: "DIGITAL VOLUNTEERING: CREATION OF WEBSITE"

Division: **F Div**

Team Members

Name	SRN
Kanishka Naik	**02FE23BCS164**
Swastik Gunake	**02FE23BCS185**
Sahana Patil	**02FE23BEC098**
Ravi Patil	**02FE23BEC040**
Swayam Bhendigeri	**02FE23BEC119**
Somappa B	**02FE23BEE055**

Guide: **Prof. Sanjeev Janawade**
Point of View Statement:

Staff members of orphanage swami Vivekananda seva Pratishtha, Belgaum needs a way to utilize the technological equipment's in orphanage to manage the donors & student's data however, there is lack of support from main management and government due to which, no one is there to provide them knowledge about it, Lack of digital volunteers, In spite of their interest in learning.

Abstract:

A local orphanage Swami Vivekananda seva trust which is facing problem in maintaining records of donors that is located at Subash Nagar near police quatres Belgaum, Karnataka ,590016.

stake holders are as follows:

- Ramappa Gowda (primary stake holder- head in charge)
- Sakshi (primary stake holder-student)
- Mrs. Pooja Heeramani (primary stake holder-employee at orphanage)
- Lokesh Patel (secondary stake holder-donor)

Pain points: They don't have proper knowledge in technology; Donors don't receive any proof of their donations; No measures are taken towards billing information about donors.

Gain points: They have proper electronic equipment's; A friendly and comfortable atmosphere is established in there; The staff has basic level education They can follow instruction when given properly.

Process of Defining the Problem: we communicated with them through individual conversation to understand their problem after acquiring a proper knowledge we focused on gradual phase of defining the problem.

Ideation: As we are helping in term of technology for the digitalizing orphanage so that their life gets upgradation to complex writing in books which can get lost or damaged, but the files saved in computers better option hence developed website which can help them to make their work easier as most people who do engineering are unaware how they can be a digital volunteer and help people. Helping people through your own talents and skills which can build and nurture somebody's life is a great feeling and hence we are making awareness session in other engineering youths the knowledge of new criteria in helping people and finding ways to digitalize society.

Prototyping and Testing- we have created the website that can store donors' data in computer as well as in excel sheet for viewing when required. we have tested this website multiple times while creating it as well as after complete creation of prototype so that there no error occurrence takes place.

Feedback about the Course

The DTSI course has brought us a lot of knowledge and confidence in our life. the journey of this course has been a really good experience that will help us and as well the people we helped in upcoming future.

TITLE: GRAM PANCHAYAT, HINDALGA

Division: **F Div**

Team Members

Name	SRN
Amit Bidarolli	**02FE23BES165**
Adesh Busari	**02FE23BCS165**
Ajit Ramesh Chakravarti	**02FE23BEC109**
Sneha Biradar Patil	**02FE23BEC106**
Spoorti Siddanagoudar	**20FE23BEC096**

Guide: **Prof. Sanjeev Janawade**

Point of View Statement:

Gram panchayat of Hindalga needs a way to communicate with the people as the gram Sabha is not conducted since the last one year and the people also wants to convey their thoughts for the betterment in the region

Abstract:

Despite its constitutional mandate and pivotal role in grassroots governance, instances of Gram Sabha non-conduction have become a significant concern. Factors such as inadequate awareness, bureaucratic hurdles, and political apathy emerge as key contributors to the observed trend, The paper also sheds light on the implications of non-conduction, emphasizing its adverse effects on participatory democracy, community development, and social justice at the local level.

Pain points of the Primary Stake Holders:

1: Workers having problem in database management.

2: Gram Sabha not conducted since last one year.

3: Corruption has increased in the Panchayat in recent years.

Pain points of the Secondary Stake Holder:

1: Not having proper sewage lines to separate water to reuse it.

2: No nearby hospital or veterinary hospital to use for the people.

Pain points of the Tertiary Stake Holder:

1: Not getting proper funds.

2: Govt is facing losses because of the different new schemes.

Feedback about the Course

Feedback: it was a good experience , we could reach wider people as in our case a panchayat was helped and along with that the people of the region were also helped.It gave a good opportunity to showcase skills and help people in a good way

TITLE: **DIGITALISING BLOOD BANK MANAGEMENT**

Division: **F Div**

Team Members

Name	SRN
Amogh M Kulkarni	**02FE23BEC087**
Vipul More	**02FE23BEC078**
Deepak Kajagar	**02FE23BEC066**
Shivani Mokashi	**02FE23BCS159**
Shivleela Pettanshetti	**02FE23BCS144**

Guide: **Prof. Sanjeev Janawade**

Point of View Statement:

People of Belagavi needs a way to make blood banks available at any point of time to save the life of a needy person. However there is shortage of blood due to lack of awareness to the people to donate blood and the problems to store the blood for a longer period of time, in spite of their interest to donate blood and save patients life.

Abstract:

The SAI Blood Bank at Sai Hospital targets critical pain points in blood donation systems, focusing on alleviating blood shortages by enhancing storage, logistics, donor eligibility, and requirements management. Through these improvements, it ensures a consistent and reliable blood supply, addressing the challenges often faced during medical treatments and emergencies.

In addition to addressing these challenges, the SAI Blood Bank capitalizes on gain points by actively engaging the community, supporting public health initiatives, and contributing to ongoing medical research. Its comprehensive system not only saves lives by providing timely access to blood but also establishes a sustainable support network within the community for healthcare needs.

This innovative prototype incorporates various web-based interfaces and databases to streamline blood collection, manage inventory, oversee distribution, and handle donor information efficiently. Moreover, it provides essential analysis reports that forecast the success probability and feasibility of proposed blood donation camps. This forward-thinking approach ensures effective planning and execution of donation drives, maximizing their impact and ultimately saving more lives.

Feedback about the Course

Design thinking in social innovation fosters understanding by encouraging individuals to empathize with others' problems. It cultivates an innovative mindset, empowering individuals to creatively address these issues. By immersing oneself in the problem, the approach enhances problem-solving abilities, nurturing the capacity to devise novel models or solutions. This method not only aids in comprehending diverse perspectives but also sparks innovative thinking to tackle specific societal challenges effectively.

TITLE: WOMEN EMPOWERMENT

Division: **G Div**

Team Members

Name	SRN
Anushri Kajagar	**02FE23BCS084**
Poorvi Jambigi	**02FE23BCS004**
Sharvani Janmatti	**02FE23BCS008**
Shah Mohammad Ibrahim	**02FE23BCS106**
Mohammad Sami	**02FE23BCS019**

Guide: **Prof. Shailesh Gholbhanvi**

Point of View Statement:

Women workers of Mahalakshmi home products needs a way to promote their handmade wafers to increase their marketing business ,however there is lack of marketing due to personal   challenges like low income, lack of knowledge, low marketing skills, no branding , poor packing etc.

Abstract:

Our project is helping women in the wafer business ,means giving them a chance to   succeed. We made a special website where they can show and sell the Wafer snacks they make at home. This way, more people can buy from them, and they can earn more money. making sure they have a fair chance to do well in their business.

Primary stake holder-working women, Secondary stakeholder- customers and tertiary stakeholder - neighbors/society . Pain points include: Not having enough money to grow their business,It can be hard to grow their business and take care of their family responsibilities,It is hard and difficult to find well skilled workers. Gain points include: selling from home reduces renting a commercial area,Flexible Schedule, Homemade   Wafers Attract Customers There was lack of marketing and not covering much market in town.Hence forth we decided to improve her business by taking it online and helping her to reach more customers and inspire women that they can. We did web site and social media accounts. In the web site we have given web site which is user friendly.

Feedback about the Course

Course:Design thinking for social innovation

We loved working together on projects. It made learning way more fun and helped us see different sides of things.The course content proved highly relevant, offering practical insights that we can readily apply to real-world social challenges.

TITLE: **SMART SENIOR SUPPORT**

Division: **G Div**

Team Members

Name	SRN
Amogh M Kulkarni	02FE23BEC087
Vipul More	02FE23BEC078
Deepak Kajagar	02FE23BEC066
Shivani Mokashi	02FE23BCS159
Shivleela Pettanshetti	02FE23BCS144

Guide: **Prof. Shailesh Gholbhanvi**

Point of View Statement:

Old age people of Shantai Vruddhashrama need a way to overcome their loneliness and health issues to forget the problems happening in their life which arised due to separation from their children however there is lack of support from their management due to low funds inspite of their attempts to provide the old age people with all the facilities.

Abstract:

The sensorized walking stick project aims to revolutionize elderly care by introducing a technically advanced mobility aid designed to enhance the safety and independence of seniors in our community.Recognizing the unique challenges faced by elderly individuals , our project focuses on developing a user friendly stick equipped with sensors, These sensors offers features such as obstacle detection and fall prevention.

At the heart of our initiative is a commitment to engage and collaboration. We have actively sought feedback from users , caregivers , and community leaders throughout the development process. This inclusive approach ensures that the sensorized walking stick not only addresses technological challenges but also integrates seamlessly into existing care practices and cultural norms.

We aim to create a technology that reflects the community's values and enhance the quality of life for elderly individuals, promoting a sense of security , dignity , and autonomy.

Feedback about the Course

We have a valuable learning experience through this course about creating solutions for different social problems and also learnt about creating innovative ideas.

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TITLE: SENSORYSTRIDE-SMART STICK FOR VISUALLY IMPAIRED

Division: **G Div**

Team Members

Name	SRN
Akash Atteppa Janawad	**02FE23BCS111**
Gouri M. Patil	**02FE23BCS094**
Ritika L. Loni	**02FE23BCS021**
Preeti Patil	**02FE23BEC071**
Omkar Nimbalkar	**02FE23BCS110**

Guide: **Prof. Shailesh Gholbhanvi**

Point of View Statement:

Children of Maheshwari Blind School Belagum need a way to utilise better facilities, software to learn braille script board, good education to pursue their goals success in their life However there is lack of confidence in students due to which parents cannot afford fees and they don't send their children to school, inspite of their interest to educate children.

Abstract:

The main aim of this work is that we had been to the visit for blind school as a subject called DESIGN THINKING FOR SOCIAL INNOVATION, we observed many students were blind and some were partially blind. We planned to make blind stick therefore a sensor stick for the blinds. The sweeping motion of the stick allow blinds to detect objects in their path enhancing their awareness and safety.

The "SensorStride-Smart stick for visual impaired" project introduces an innovative and technologically advanced solution to enhance mobility and independence for individuals with visual impairment. This IOT enabled blind stick incorporates cutting edge sensor technologies, real-time data processing, and intuitive feedback mechanism to revolutionize the navigation experience for the visual impaired.

This innovative approach empowers users to navigate with increased awareness, allowing them to make informed decision, avoid obstacles and provide signals.

Stability and Safety are the main ones that come to mind it saves the blind person from any type of obstacles. It will be very helpful to blind people. It fundamentally reshapes the narrative of independence for the visually impaired. By reducing reliance on others and fostering self-reliance, this technology empowers individuals to navigate the world on their terms.

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Feedback about the Course

Good

TITLE: GLOBALIZATION OF THE PRODUCTS THROUGH SOCIAL MEDIA

Division: **G Div**

Team Members

Name	SRN
Mahammadismail Quadri	**02FE23BCS063**
Ashutosh Chatur	**02FE23BCS120**
Archana Chougala	**02FE23BCS133**
N Gagandeep	**02FE23BCS036**
Aditi patil	**02FE23BE053**

Guide: **Prof. Shailesh Gholbhanvi**
Point of View Statement:

"Pot makers and sellers of Belgaum needs a way to promote their products like pots, flower pots to increase their marketing business, however there is lack of marketing due to personal challenges Uke low income, lack of knowledge about online marketing, no branding etc."

Abstract:

This project outlines the development of an e-commerce website for "Sayyed Plants Pots," a local shop situated near Shivaji Nagar, Tilakwadi, Belgaum. The website aims to globalize the diverse range of handcrafted products, including mud pots, designed pots, and flower pots, curated by Sayyed Plants Pots. By leveraging the digital space, the platform will enhance the visibility of these unique artisanal creations and facilitate their accessibility to a global audience.

The website will feature an intuitive and user-friendly interface, allowing customers to explore and purchase a wide variety of pots with ease. Additionally, the website will provide detailed product descriptions, highlighting the craftsmanship and cultural significance behind each item.

To enhance user engagement, the platform will include interactive features such as customer reviews / ratings, and about us. Robust search and filtering options will empower users to efficiently navigate through the extensive product.. The project also addresses the incorporation of effective digital marketing strategies, including social media campaigns like Instagram and search engine optimization, to broaden the reach of Sayyed Plants Pots globally.

In conclusion, the Sayyed Plants Pots e-commerce platform seeks to seamlessly integrate traditional craftsmanship with the digital landscape, providing a global audience access to the affordable range of mud pots, designed pots, and flowerpots.

Feedback about the Course

The Design Thinking for Social Innovation (DTSI) course uniquely merges engineering and design thinking, offering us a platform to tackle social issues through innovation. It's commendable for encourage a multidisciplinary approach and promoting us to apply our engineering skills for meaningful social impact.

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TITLE: **UPGRADING TO DIGITAL SCREENS**

Division: **G Div**

Team Members

Name	SRN
Vijet Kutte	**02FE23BEC075**
Sahana Badiger	**02FE23BEC116**
Saniya Tabasum	**02FE23BCS190**
Spoorti Naik	**02FE23BCS179**
Kartik Kerur	**02FE23BEC016**

Guide: **Prof. S. B. Yadwad**

Point of View Statement:

The blind students of Maheshwar blind School Belagavi needs a way to reuse the braille papers to reduce the expenditure & environmental pollution however there is lack of Support from teachers and parents due to personal Challenges like lack of time during academic and low potentiality of innovation, inspite of Students interest to reuse the paper.

Abstract:

In the visit of Maheshwari blind school we observed many students were blind and many were poor. By hearing their life stories we felt very bad. As they were from poor background they were not able to pay fees. They are getting free education and shelter in this school. They shared some problems with us during our visit'. The major problem wa problem was they were facing problem related to shortage of braille paper. Every year it costs lacks of money to buy a braille paper. And once used papers are not able to reuse again. And the school'do not take any fees from students or parents.

The blind students of Maheshwar blind School Belagavi needs a way to reuse the braille papers to reduce the expenditure and environmental pollution and they were feeling loneliness, anxiety, and many such problems about their future, however there is lack of Support from teachers and parents due to personal Challenges li like lack of time during academic and low potentiality of innovation, inspite of Students interest to reuse the paper.

So we decided to take it as challenge for our social innovation. We thought of giving solution to reuse a braille paper. As it was impossible but we came up with some solutions which worked, we thought of making digital screen which helps the students to learn and write. This screen also helps in saving papers which is good for environment also. This screen also helps in developing the technology of the students. It help the students and school management financially and reduce them on depending on donars and on government. It is also good for nature which reduces the cutting of trees to manufacture papers.

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Feedback about the Course

Creative learning subject

TITLE: **BIODEGRADABLE SANITARY NAPKINS**

Division: **G Div**
Team Members

Name	SRN
Ananya Yarali.	**02FE23BCS177**
Rakshita Kalasaraddi	**02FE23BCS117**
Utkarsh Divate	**02FE23BCS158**
Kartik Sunkad.	**02FE23BEE061**
Shivprasad Mitagar	**02FE23BEE062**
Mallinath Mugadi	**02FE23BCS140**

Guide: **Prof. S. B. Yadwad**
Point of View Statement:

1st line municipality workers from municiple corporation in Belagavi city needs a way to proper disposal of sanitary napkins for clean and hygiene surrounding and to reduce pollution. However, there is lack of support from parents due to personal challenges like lack of awareness, busy schedule and laziness s, Inspite of all these challenges front line municipality workers interest for safe disposal.

Abstract:

As per the data by Menstrual Health Alliance India, a single sanitary napkin takes up to 500 to 800 years to get decomposed, which leads to health and environmental hazards. These do not decompose and break down into micro-plastics, thereby contaminating the soil, water, and air.

Materials:

Banana stem (freshly cut) ,Water ,Baking soda (optional for softening) ,Lemon juice and vinegar (optional for bleaching) ,Knife or chopper ,Blender or food processor ,Clean container .

Procedure: Wash and clean the banana stem: Remove any dirt or debris from the stem. Peel off the outer layer and cut the stem into smaller pieces (Approx 5 cm in length).

Soften the stem: Soak the chopped banana stem in a solution of water and baking soda for about 3 to 4 hours. This helps to soften the fibers and make blending easier.

Bleach the stem: If you want a whiter pulp, soak the chopped stem in a solution of water and lemon juice and vinegar for about 60 minutes.

Rinse thoroughly afterwards.

Blend the stem: Drain the soaked stem pieces and add them to a blender or food processor. Add enough water to cover the stems, and blend until a smooth pulp is formed. You might need to do this in batches depending on the size of your blender.

Strain the pulp: Pour the blended pulp through a sieve or cheesecloth to remove any fibrous residue. You can adjust the consistency of the pulp by adding more water if necessary. Dry and Store the pulp:

 Note : Use ripe banana stems as they are softer and easier to process.

 Safety precautions:

Wear gloves when handling the banana stem as it can contain sap that can irritate the skin. Wash all utensils and surfaces that come into contact with the banana stem thoroughly to prevent contamination. If using chemicals like baking soda or vinegar, ensure they are food-grade and handle them with caution. You can also use a mortar and pestle to pound the banana stem instead of a blender. This will take longer but will give you a more fibrous pulp.

Feedback about the Course

Design thinking is a creative and collaborative approach to solving complex problems and generating innovative solutions. It involves empathizing with the users, defining the problem, ideating possible solutions, prototyping and testing them, and implementing them in the real world.

Group photos of community visit

DESIGN THINKING FOR
SOCIAL INNOVATION (DTSI)

Venue: Department of Mechanical Engineering
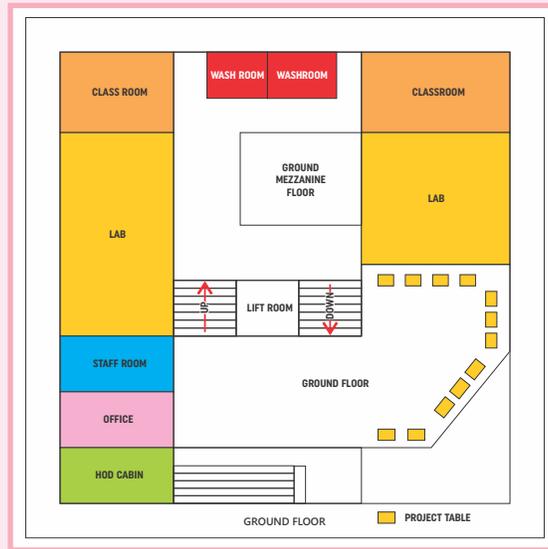
Exhibition Layout
Ground Floor

Ground floor plan labels: CLASS ROOM, WASH ROOM, WASHROOM, CLASSROOM, GROUND MEZZANINE FLOOR, LAB, LAB, UP, LIFT ROOM, DOWN, STAFF ROOM, GROUND FLOOR, OFFICE, HOD CABIN, GROUND FLOOR, PROJECT TABLE
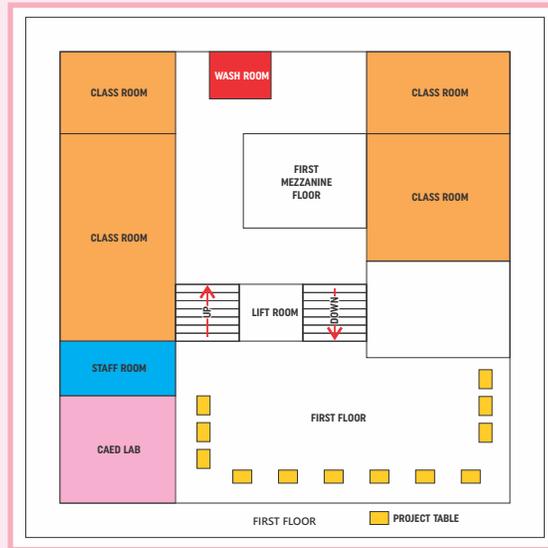
Exhibition Layout
1st Floor

First floor plan labels: CLASS ROOM, WASH ROOM, CLASS ROOM, CLASS ROOM, FIRST MEZZANINE FLOOR, CLASS ROOM, UP, LIFT ROOM, DOWN, STAFF ROOM, FIRST FLOOR, CAED LAB, FIRST FLOOR, PROJECT TABLE
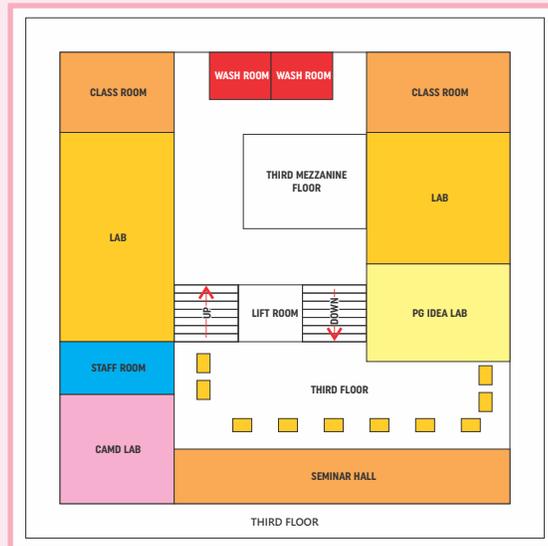
Exhibition Layout
2nd Floor

Third floor plan labels: CLASS ROOM, WASH ROOM, WASH ROOM, CLASS ROOM, THIRD MEZZANINE FLOOR, LAB, LAB, UP, LIFT ROOM, DOWN, PG IDEA LAB, STAFF ROOM, THIRD FLOOR, CAMD LAB, SEMINAR HALL, THIRD FLOOR

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