21st July 2023

AVINYA VARSH 2023

DESIGN THINKING
FOR SOCIAL INNOVATION

KLE TECH

KLE

TECHNOLOGICAL UNIVERSITY
Creating Value, Leveraging Knowledge
(Incorporated under KLE Technological University Act-2012: Karnataka Act No. 22 of 2013, AICTE Approved)

Dr. M. S. Sheshgiri College of Engineering and Technology
Belagavi, Karnataka | Ph: 0831-2440322

Design Thinking for Social Innovation Team

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 21st July., 2023 under the banner of Avinya Varsh 2023.

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 Varsh 2023" is being conducted on July 21, 2023, at the campus. This exhibition is going to showcase 55+ solutions to the social challenges given by the first-year undergraduate engineering students of Electrical Science stream.

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

DESIGN THINKING
FOR SOCIAL INNOVATION

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Design Challenge: **ASHRAYA FOUNDATION**

Division: **A Div**

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

Location: **Ashraya Foundation, Belagavi**

Team Members

Name of the Student	SRN	Point of View Statement
Anupama	02FE22BME003	Hiv Infected handicraft, artisans of Ashraya Foundation needs a way to marketing the products to the customers at national level. However there is a lack of support from Ashraya foundation to market their products
Prabhat	02FE22BME012	
Vinayak	02FE22BCH026	
Ziyaullah	02FE22BCH027	
Sneha	02FE22BCV010	

Narration

HIV infected handicraft artisans of Ashraya foundation needs a way to marketing the products to the customers at national level.however there is lack of support from Ashraya foundation to market the artifacts to rise funds.

Mahantesh Nagar, Belagavi

Primary Stakeholder: People who are affected by HIV/AIDS

Secondary stakeholders: Transporter and Raw material suppliers

Primary stakeholder pain points: Marketing of products prepared by the artisan.

No proper funding.

Secondary stakeholders pain points:

Supply of products at further places.

No stable delivery partners.

Feedback about the Course

Learnt how to serve the community service to the nation through design thinking process in this course. And learnt lot of Discplines through this entire course. And learnt about the how to present our problems.At last we learned good Outcomes.

Design Challenge: **WATER PURIFICATION SYSTEM**

Division: **A Div**

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

Location: **Gharkul Old Age Home, Belagavi**

Team Members

Name of the Student	SRN
Shantesh Sheelavantar	02FE22BCH020
Kalmesh Pujeri	02FE22BME007
Jagadeesh Sindageri	02FE22BME006
Ashwath Mavinkoppa	02FE22BME004
Dhruv Patil	02FE22BCH009

Point of View Statement

The management of Gharkul Old Age home Belagavi, needs away to purify the used water coming from kitchen and washroom to safeguard the soil health. However there is a lack of funds to purchase sophisticated industrial water purifier system due to severe shortage of donation from people.

Narration

Water purification is a critical social challenge worldwide, particularly in developing regions where access to clean water is limited. This abstract focuses on a water purification system designed to address this challenge. The location of the challenge could be a specific region or community facing water scarcity issues. The stakeholders involved would include the affected community, local authorities, and organizations working towards water sustainability. The pain points revolve around the lack of access to safe drinking water, leading to health issues and reduced quality of life.

The process of defining the problem involves assessing the specific needs and constraints of the community, such as availability of water sources, infrastructure limitations, and affordability. Ideation involves brainstorming and developing innovative solutions that can effectively purify water in a cost-effective and sustainable manner. Prototyping is the stage where a physical or conceptual model of the water purification system is created for testing and validation. The testing phase involves evaluating the performance, efficiency, and usability of the system, taking into account factors like water quality improvement, maintenance requirements, and user satisfaction.

Overall, this abstract highlights the social challenge of water purification, its location, key stakeholders, pain points, and the iterative process of defining the problem, ideation, prototyping, and testing. By addressing these aspects, it aims to provide a brief overview of the comprehensive approach required to tackle the global issue of water scarcity and ensure access to clean and safe drinking water for all.

Feedback about the Course

The course has been commended for its unique and thought-provoking content that fosters a deep understanding of social challenges and encourages innovative solutions. We appreciate the interactive nature of the course, which involves group discussions, case studies, and real-world examples, allowing us to apply our learning to practical situations.

One of the highlights to be mentioned is the emphasis on collaboration and teamwork. The course structure promotes group projects and activities, enabling us to work together, share ideas, and learn from each other's perspectives. This collaborative approach has not only enhanced our problem-solving skills but also nurtured a sense of community among us.

Design Challenge: **DIGITAL PHC**

Division: **A Div**

Guide: **Prof. S. B. Yadwad**
Location: **PHC, Vadagaon, Belagavi**

Team Members

Name of the Student	SRN
Prasad H	02FE22BME015
Pranav G	02FE22BME014
Md. Hanzala	02FE22BCH013
Keshpal	02FE22BME008
Vishal	02FE22BCH027

Point of View Statement

Staff/Receptionist of Primary Healthcare Centre, Vadagaon, Belagavi & patients visiting PHC needs a way for efficient data management system to speed up the registration process. However, there is lack of support from the government due to insufficient funds, in spite of strong indication by the PHC in charge.

Narration

PHC Vadagaon is facing a challenge of manual data management, leading to increased waiting time for patients. The primary stakeholders affected by this problem are the receptionists and patients, while the doctors are the secondary stakeholders. The tertiary stakeholders include the health care minister and district health minister. The pain points associated with this issue are the long queues of patients, potential loss or misplacement of data, and wastage of time during emergencies.

To address this problem, an ideation process was conducted, generating 25 ideas. These ideas were then filtered based on their impact and feasibility, resulting in five selected ideas. From these five ideas, the best idea was chosen using a factors vs sustainability chart. The chosen idea was to implement digital technology. The concept of digital technology was further refined using the SCAMPER method, leading to the final idea of developing a database management website.

Following the ideation process, a prototype of the database management software was developed. This prototype underwent testing, during which minor errors were debugged to ensure its usability. The final product is an easy-to-use database management software that can be utilized by PHC receptionists to store patient data efficiently, reducing waiting times for patients.

Overall, the implementation of digital PHC through the development of a database management software has the potential to streamline the data management process at PHC Vadagaon, alleviating the pain points of long queues, data loss, and time wastage during emergencies. By reducing waiting times, both receptionists and patients can benefit from improved efficiency and quality of care. Additionally, the involvement of stakeholders such as the health care minister and district health minister can ensure the sustainability and support for this digital solution.

Feedback about the Course

Design thinking for social innovation course as it teaches user centric approach to a social challenge. It help us to be empathetic and teaches us , how to create a solution for a particular social problem in best possible way.

Design Challenge: **SMART BED TECHNOLOGY**

Division: **A Div**

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

Location: **PHC, Belagavi**

Team Members

Name of the Student	SRN
Sachin Somai	02FE22BME020
Dhoolappa Kagi	02FE22BCH008
Vinayak Kubsad	02FE22BME023
Manikya Jorapur	02FE22BME010
Akshata Badiger	02FE22BCH004

Point of View Statement

Doctor at Primary health care centre located in Belagavi need a way to ensuring safety of patients while sleeping on the bed till full recovery during the treatment however there is lack of support by the government due to insufficient funds, In spite of strong inclination by the Primary health care centre in charge to improve the system.

Narration

Our social challenge is Safety of the patients in beds at primary health care centre which is located at Subhash Nagar Belagavi and the Stake Holders are :

Primary Stake Holder -- Patients, Attender

Secondary Stake Holder -- Doctors, Staff

Tertiary Stake Holder -- Government.

Pain Points:

Primary Stake Holder --Patients fall from the Bed.

Secondary Stake Holder -- Recovery of the Aged Patient is Slow.

Tertiary Stake Holder -- Infrastructure and resource limitations.

The Problem is Due to Lack of care towards patients from the Health care staff the patient may fall from the bed and get injured.

Ideation: Generally Ideation consists of three stages which include:

Idea Generation Brainstorming: In this We have generated around 30 ideas and selected some of the ideas.

Idea Filtering :In Idea Filtering we have selected 4 ideas in the quadrant 4 which is yes quadrant that are buzzer system, sound Indication ,use foldable beds, Use sensors.

Idea Evaluation: In idea evaluation we have selected finalized idea as buzzer system with sensors.

Prototype: In prototyping we have generated specifications and developed the prototype which is smart bed with advanced technology using sensors which prevents the patient from fall.

Testing: The working of the the smart bed.

Feedback about the Course

Design Thinking for social innovation is a course which improves our communication skills and also gain lots of experience from this course.

Design Challenge: **ELECTRONIC GADGET**

Division: **A Div**

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

Location: **Anand Yatri Old Age Home, Belagavi**

Team Members

Name of the Student	SRN
Sarvesh shindolkar	02FE22BME021
Rahul m k	02FE22BCV007
Mohammadsaab mulla	02FE22BCH012
Sameer Nadaf	02FE22BCV008

Point of View Statement

The inmates of Anand yathri old age home Belgaum, needs a way to improve their mental health of the inmates to increase the quality of life. However there is a lack of funds due to least public awareness and donations.

Narration

The primary stakeholders of Anand Yathri Old Age School in Belgaum, the members of the old age home, are seeking a solution to enhance their mental well-being and alleviate the feelings of loneliness caused by their isolation. They require opportunities for engagement in meaningful work and social activities. Recognizing that many inmates possess smartphones but underutilize them by solely receiving and ending calls, a solution has been devised. The proposed solution involves introducing an app that simplifies access to basic smartphone functions such as phone, contacts, camera, gallery, and video player. The app is designed to be easily comprehensible for new learners.

To address the inmates' desire to expand their knowledge and explore various social media platforms, games, and other features, the app will also include a separate page dedicated to social media. This section will provide comprehensive guidelines and tutorials for each platform, enabling the inmates to learn at their own pace. Additionally, the app will feature a separate page dedicated to engaging games, carefully curated to offer a variety of easy and enjoyable options. These games will serve as a source of entertainment and help the inmates occupy their time productively.

The app's design and development have reached a significant milestone, having successfully passed the testing process and achieved full functionality. Although a few additional updates are required, the app is now ready to be introduced to the members of the old age home and potentially expanded to other similar facilities. To ensure its effectiveness, training sessions will be conducted to familiarize the inmates with the app's features, functionalities, and navigation. Furthermore, ongoing support will be provided within the old age home to address any concerns or difficulties encountered while using the app. Regular feedback from the inmates will be encouraged to identify areas for improvement and incorporate new features, with a focus on privacy and security to protect their personal information.

By implementing this app-based solution, involving the primary stakeholders in the process, and considering the needs of secondary stakeholders such as workers and caregivers, the goal of improving the mental health and engagement of the elderly inmates at Anand Yathri Old Age School can be effectively addressed

Feedback about the Course

It provides valuable insights and perspectives from others that can help you refine and improve your work. When seeking feedback, consider key aspects of your project such as the objectives, problem analysis, innovative solutions, implementation strategy, stakeholder engagement, evaluation methods, and sustainability plans. Embrace constructive criticism and consider multiple viewpoints to gain a comprehensive understanding of your project's strengths and areas for improvement. Additionally, effective communication and presentation materials are crucial for conveying the essence of your project to different audiences. Take the feedback you receive into account, using it to make your social innovation project more impactful, feasible, and sustainable in addressing the identified social issue. By actively seeking and utilizing feedback, you can enhance the quality and success of your course project.

Design Challenge: **SECURE SYSTEM**

Division: **A Div**

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

Location: **Ashra Vidyashram Tilakwadi Belgaum**

Team Members

Name of the Student	SRN	Point of View Statement
Muzakkir .S	02FE22BCH014	
Poornachandra .V	02FE22BME017	
Prutviraj . K	02FE22BME016	
Mahediyadurrah . R	02FE22BCH011	
Gunjan .M	02FE22BCH010	

Point of View Statement

Inmates of Ashra vidyashram tilakwadi Belgaum need a way to enhance safety at the premises during the day and night. However there is a lack of support from the management despite the lack of funds.

Narration

The social challenge is that there was a lack of security at the Ashra Vidyashram Tilakwadi Belgaum, an orphanage of only girls. The primary stakeholders are the girls living at the Asharam, secondary stakeholders are those in charge or warden of the hostel, and tertiary stakeholders are the founder or the chairman of the foundation.

The pain points are :

1. Traditional gates may pose a security risk for the orphanage, as unauthorized individuals can gain access easily.

2. Manual gate opening and verification processes can be time-consuming.

3. Managing access permissions manually, keeping track of keys, and monitoring gate activities can be a significant administrative burden for the orphanage staff.

process of defining the problem :

1. Identifying the stakeholders.

2. Gather the information.

3. Analyze the information.

4. Define the problem statement.

5. Identify underlying causes.

6. Consider external forces.

7. Prioritize and set goals.

8. Seek expert advice.

Defining the Ideation:

Our ideation started after understanding the problem. The first task was to come up with ideas so we first started with the brainstorming activity where we came up with 25 ideas then we choose the best idea of making an automated gate with a buzzer and sensor. By impact vs feasibility chart and idea filtering. Then specifying the components required and making the prototype with Arduino, sensors, buzzers, and gear system, and a dc motor. Then tested the prototye which was successful.

Feedback about the Course

This was very good because of which I developed many skills and this made us innovative. Learned many things like understanding the problems of the people and society. Learned how the process of social innovation works and what impact it can have on us and the people.

Design Challenge: **INCREASING THE LEARNING ABILITIES OF DUFF AND DUM STUDENTS**

Division: **B Div**

Guide: **Prof Shivashankar M Janawade**

Location: **Ajay Deaf And Dumb School Auto Nagar, Belagavi**

Team Members

Name of the Student	SRN
Muzakkir .S	02FE22BCH014
Poornachandra .V	02FE22BME017
Prutviraj .K	02FE22BME016
Mahediyadurrah .R	02FE22BCH011
Gunjan .M	02FE22BCH010

Point of View Statement

Inmates of Ashra vidyashram tilakwadi Belgaum need a way to enhance safety at the premises during the day and night. However there is a lack of support from the management despite the lack of funds.

Narration

The social challenge is that there was a lack of security at the Ashra Vidyashram Tilakwadi Belgaum, an orphanage of only girls. The primary stakeholders are the girls living at the Asharam, secondary stakeholders are those in charge or warden of the hostel, and tertiary stakeholders are the founder or the chairman of the foundation.

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Our ideation started after understanding the problem. The first task was to come up with ideas so we first started with the brainstorming activity where we came up with 25 ideas then we choose the best idea of making an automated gate with a buzzer and sensor. By impact vs feasibility chart and idea filtering. Then specifying the components required and making the prototype with Arduino, sensors, buzzers, and gear system, and a dc motor. Then tested the prototye which was successful.

Feedback about the Course

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Impact VS Feasibility Analysis

Design Challenge: **CREATING AWARENESS ON MENSTRUAL HYGIENE AND PROVIDING SOLUTIONS TO REDUCE CRAMPS**

Division: **B Div**

Guide: **Prof Shivashankar M Janawade**

Location: **Tilkawadi, Belagavi**

Team Members

Name of the Student	SRN
Kriti Deshpande	02FE22BCH007
Kirthi Raydurg	02FE22BME009
Priyanka Mendigeri	02FE22BCV006
Reuben Rebelo	02FE22BME019
Nivedita Kamble	02FE22BCH016

Point of View Statement

Women of Tilakwadi area of age between 12-45 need a way to educate themselves and the people around them about menstrual hygiene; also accompanied with useful remedies that can reduce the period cramps,in order to continue their work with ease and comfort. However, they lack knowledge and solutions regarding problems they face during the menstrual cycle.

Narration

Women of Tilakwadi nagar between the age of 12-50 years lack certain knowledge regarding Menstrual hygiene and need a way to reduce the intensity of menstrual cramps.

With work force colleagues and friends being the tertiary stakeholders, Family being the secondary stakeholder and women being the main primary sufferers of this problem; they experience huge distress during their monthly periods w.r.t sustaining cramps for a longer period of time.

To reduce this problem to some extent in a small part of our society, our group has ideated and prototyped to create awareness among women regarding menstrual hygiene along with some Innovative techniques to reduce menstrual cramps.

A survey and an awareness program was conducted to test the efficiency of women using different types of methods to reduce their period cramps at KLS English Medium School, Samarthan Foundation and Janani Foundation.The survey results depicted that more than 83% of women use painkillers to get rid of cramps quickly which have harmful side-effects.

Feedback about the Course

Design Thinking and Social Innovation course is a very unique concept which built the thinking ability of all of us to bring in a solutionistic approach for a particular problem experienced in the society. It made us actually dwell in the problems of the society empathising into their difficulties and accordingly bring a change in reducing their problems .Overall it was a very interactive course which made my group and me confident in bringing meaningful solutions for a problem given.
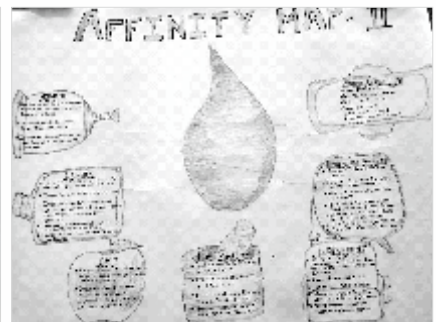
Design Challenge: **AUTOMATION OF BORE WELL**

Division: **B Div**

Guide: **Prof Shivashankar M Janawade**

Location: **Majagaon, Belagavi**

Team Members

Name of the Student	SRN
Virupakshagouda	02FE22BME024
Basavaraj	02FE22BCV002
Vaibhav	02FE22BCH025
Akash	02FE22BCH002
Inzamam	02FE22BME005

Point of View Statement

The farmer of Majagaon of Belagavi district automation as it eased the life of many farmer. Installation of an electric motor for water pump on agricultural land for irrigation purposes as it fulfilled the basic needs for former ever water supplying is resulting in an increase in the production of crops, switching the motor on/off take too much time to travel.

Narration

Automation in borewells has revolutionized the way water extraction is conducted, providing significant advantages over traditional manual methods. Firstly, automated borewells ensure precise control and monitoring of the drilling process. By utilizing sensors and computerized systems, these borewells can accurately determine the depth, pressure, and flow rate of water, optimizing the extraction process. This level of automation allows for better efficiency and reduces the risk of over-extraction or damage to the well.

Secondly, automation in borewells enhances safety and reduces human intervention. Manual drilling of borewells can be physically demanding and hazardous, involving heavy machinery and deep excavations. With automation, operators can control the drilling equipment from a safe distance, minimizing the risk of accidents or injuries. Moreover, automated systems can detect potential issues such as blockages or mechanical failures, enabling proactive maintenance and avoiding costly breakdowns.

Lastly, automation in borewells improves data collection and analysis for better decision-making. The sensors and monitoring systems integrated into automated borewells gather real-time data on water levels, quality, and geological formations. This information can be analyzed to optimize water usage, identify potential water sources, and assess the overall sustainability of the extraction process. By leveraging automation, borewell operators can make informed choices and implement water management strategies that are both efficient and environmentally responsible.

Feedback about the Course

It helps us to know about the society and the difficulties faced by the people's

Design Challenge: **PROTECTION OF CROPS FROM ANIMALS**

Division: **B Div**

Guide: **Prof Shivashankar M Janawade**

Location: **Kitwad Village, Belagavi**

Team Members

Name of the Student	SRN
Ramchandra Gavade	02FE22BCH019
Praveen Kooge	02FE22BCH018
Akhilesh Gouda	02FE22BCH003
Adithya Patavardhan	02FE22BME002
Shashank Nandre	02FE22BCV009

Point of View Statement

Farmers of Kitwad village of Chandigad taluk needs a way to protect their crops from animals however the farmers are unable to protect the crops by using of fencing and other physical barriers which might also be costly for the farmers and cannot be affordable . As there is lack of knowledge of modern technology and even the government are not able to overcome through this problem due to this farmer, workers and agriculture companies are facing problem.

Narration

The social challenge at hand is the protection of crops from animals in the region of Kithwad. The primary stakeholder affected by this challenge is the farmer, who relies on their crops for income and sustenance. The secondary stakeholders are the workers who assist the farmers in various tasks related to crop cultivation. The tertiary stakeholders are the agricultural agencies, which provide support and guidance to farmers in the region.

The pain points associated with this social challenge include crop damage caused by animals such as deer, wild boars, and birds, resulting in financial losses for the farmers. Additionally, the labor-intensive efforts required to protect crops from these animals can be physically demanding for the workers. The agricultural agencies face the challenge of finding effective and sustainable solutions to mitigate crop damage and ensure the farmers' livelihoods. To address the problem, the process of defining the problem starts with understanding the types of animals causing crop damage and their behaviors. The stakeholders collaborate to identify the most vulnerable areas and crops, as well as the economic impact of the damage. Ideation involves brainstorming and generating ideas to deter or prevent animal intrusion, such as installing fencing, using scare devices, or implementing natural deterrents. Prototyping involves testing these ideas on a small scale to evaluate their effectiveness and feasibility. Finally, the solutions are tested in real-life scenarios to assess their impact and make necessary adjustments for optimal crop protection.

In summary, the social challenge of protecting crops from animals in Kithwad involves stakeholders such as farmers, workers, and agricultural agencies. The pain points include crop damage, financial losses, and physical exertion. The problem-solving process includes defining the problem, ideation, prototyping, and testing to find sustainable solutions that mitigate crop damage and support the farmers' livelihoods.

Feedback about the Course

The course allows us to visit the different communities for making observations. Diagnosing the problems, applying various tools to solve the problems.
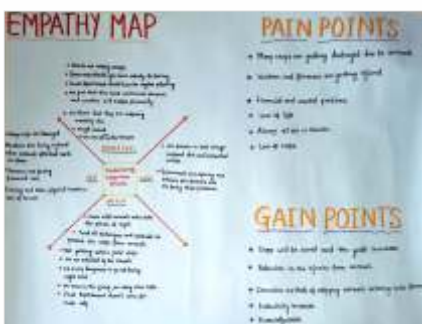
Design Challenge: **FAKE SEEDS AND CHEMICAL FERTILIZERS**

Division: **B Div**   Guide: **Prof Shivashankar M Janawade**

Location: **Angol, Belagavi**

Team Members

Name of the Student	SRN	Point of View Statement
Shravan.G.Kenchanagoudra	02FE22BCH022	The farmers of anagol area ,Belagavi are in need a way to identify fake seeds and the proper use of chemical fertilizers, so to achieve good yield and financial stability. However there is lack of support from government and agro industries which is causing loss of crop yield and financial problems while they are struggling to get rid of fake seeds and chemical fertilizers, for the sustainable agriculture systems
Tukram.L.Savantri	02FE22BCH024	
Shashank.S.Mastiholi	02FE22BCH021	
Prabhayya S Muttagi	02FE22BCV004	
Pavan Pattar	02FE22BME011	
PRAMOD KHADAKHI	02FE22BME0013	

Narration

The farmers in the Anagol area of Belagavi are facing significant challenges related to identifying fake seeds and understanding the appropriate use of chemical fertilizers to achieve high crop yields and financial stability. Unfortunately, they are not receiving adequate support from the government and agro industries, which has resulted in the loss of crop yield and financial difficulties. This abstract highlights the urgent need for a solution to combat the prevalence of fake seeds and improper use of chemical fertilizers, emphasizing the importance of sustainable agriculture systems. To address these issues, suggestions such as forming farmer cooperatives, providing training and education, and fostering networking opportunities are proposed. These measures aim to empower the farmers with the necessary knowledge and resources to identify fake seeds, adopt sustainable farming practices, and ultimately improve their crop yields and financial well-being.

Feedback about the Course

"Design thinking for social innovation" is a highly insightful and practical guide for tackling complex social problems. The effectively illustrates the power of empathy and iteration in the design process, enabling readers to develop innovative solutions that address societal challenges. The case studies and real-life examples provide valuable inspiration and demonstrate the positive impact of design thinking in various contexts. They emphasis on collaboration, user-centricity, and prototyping fosters a holistic and human-centered approach to problem-solving. Overall, "Design thinking for social innovation" is a for seeking to create positive change in society.

Design Challenge: **WATER PURIFIER**

Division: **H Div**   Guide: **Dr. D. C. Patil / Dr. Santosh Nandi**

                                              Location: **St . Joseph's Old age home, Belagavi**

Team Members

Name of the Student	SRN	Point of View Statement
Shriya B	02FE22BCI044	Aged people of old age home of St . Joseph's old age home,
Nivedita B	02FE22BEE019	Belagavi need to improve the condition stinking water and purify
Jahnvi P	02FE22BBM004	the water of their old ages home . However there was no proper
Tushar DK	02FE22BEE050	facility of drinking water,as well as condition of the drinking
Abhinandan	02FE22BCI003	water is not good for their health and not purified which effects
		the comfort and hygiene which makes them feel uncomfortable
		to stay there.

Narration

The saint joseph old age home is suffering from insufficient and unhygienic drinking water. The stake holders of this problem are Ratna,Claire,Jaya these are the old people who suffer from water problem and suffer due to illness during rainy season due to unhygienic drinking water.The quality of the drinking water had been a topic of worry. With the advancing age of the residents and their vulnerability to various health conditions, it became imperative to provide them with pure and safe water.With determination and a shared vision, our teamm embarked on a mission to install a state-of-the-art water purifier system within the premises. Wehave met the expertise of water purification specialists and collaborated with organizations dedicated to improving the lives of the elderly.Finally, we arrived with the water purifier system stood tall in the corridors of St. Joseph's Old Age Home. The gleaming machine, equipped with advanced filtration technology, promised to remove impurities and contaminants, ensuring that every drop of water that flowed from the taps was safe for consumption. The water purifier became a symbol of hope, rejuvenation, and the relentless pursuit of a better quality of life for those who had gracefully journeyed through the years.

Feedback about the Course

The social innovation course was a worthwhile endeavour since it promoted creativity and gave a thorough awareness of social challenges. The learning was enhanced by practical examples and group projects. It was a remarkable experience thanks to the knowledgeable professors and the helpful network. For having a beneficial societal influence, highly advised.

Design Challenge: **BRAILLE SWITCHBOARDS**

Division: **H Div**

Guide: **Dr. D. C. Patil / Dr. Santosh Nandi**

Location: **Samarthanam trust, Belagavi**

Team Members

Name of the Student	SRN
Pratishtha Verma	02FE22BBM009
Ishan Lokari	02FE22BCI017
Soumya Mahajanshetti	02FE22BCI047
Sanika Belgaonkar	02FE22BCI041
Sagar Kanade	02FE22BEE028

Point of View Statement

The disabled workers and students at the Samarthanam trust, Belagavi desire to live independent lives in which they can use and access their surroundings while minimizing the risk of electrical accidents. However, it has been discovered that certain equipment, such as switchboards, are difficult to access because of improperly placed electrical fixtures and the related shock hazards.

Narration

In the bustling city of Belagavi, where the spirit of inclusivity thrives, a remarkable organization called Samarthanam Trust has taken a step towards empowering the visually impaired community. Introducing the groundbreaking Braille Switchboard, a technological marvel that revolutionizes communication for the visually impaired. The Braille Switchboard, is an innovative device designed to bridge the communication gap and enhance the lives of individuals with visual impairments. This state-of-the-art device combines the power of Braille with modern technology, creating a seamless and efficient communication experience. This allows users to read and write messages in Braille with ease and precision. Connectivity is key in today's world, and the Braille Switchboard excels in this aspect. With this revolutionary device, they can effortlessly communicate with their loved ones, engage in educational pursuits, and even pursue their professional aspirations. The Braille Switchboard has truly transformed lives and shattered barriers. In the heart of Samarthanam Trust, the Braille Switchboard has become a symbol of hope, equality, and social change.

Feedback about the Course

The social innovation course has been really entertaining and exciting. It has given us a wealth of knowledge on empathy, communication, and teamwork. We can now courageously offer our thoughts thanks to it. The trips to the communities have proven to be quite beneficial for all parties, and we are eager to find out more. The course offered opportunities for applied learning, such as project work, fieldwork, or collaborations with real-world organizations.

Design Challenge: **PROVIDING BASIC MEDICAL FACILITY**

Division: **H Div**

Guide: **Dr. D. C. Patil / Dr. Santosh Nandi**

Location: **Jesus Care ashram, Mahalakshmi Nagar, Belagavi**

Team Members

Name of the Student	SRN	Point of View Statement
RAJ Y KANGRALKAR	02FE22BCI035	The old age people living in Mahalakshmi Nagar, Belagavi of Jesus Care
Shreya Akkennavar	02FE22BEE035	ashram are in need of basic medical facilities .The disorders are very
Prachi Mulimani	02FE22BCI029	common among old age people so it is necessary for them to provide a
ADITYA C GODDALE	02FE22BEE002	regular medical treatment so that they can lead a healthy and happy life.
ANIRUDH JOSHI	02fe22bci010	

Narration

The elderly residents of Mahalaxmi Nagar who reside in the ashrama there frequently require medical attention, and they only have one helper who is responsible for all maintenance and all other duties. The ashram is not equipped with state-of-the-art medical facilities, ensuring that each patient receives the best possible care. Basically, what we're doing is creating a special medical kit box that will make it easier for them to get medications since it will have stickers on it identifying which tablets are for which purposes and providing a description in a language they can easily read and understand. The facility also offers counseling services to address the emotional and psychological well-being of the patients. The kindness and compassion exhibited by the old age people and volunteers create an environment of love and acceptance. In the spirit of compassion and care, by providing basic medical facility Jesus Care Ashram in Belagavi to be a beacon of hope, ensuring that everyone who walks through its finds healing, comfort, and the belief that they are not alone.

Feedback about the Course

Since it encouraged creativity and provided a solid understanding of societal concerns, the social innovation course was a valuable attempt. Practical examples and collaborative projects improved the learning. Thanks to the smart lecturers and the supportive network, it was a fantastic experience. Highly recommended for having a positive social impact.

Design Challenge: **DIGITAL PAYMENT SYSTEM**
Division: **H Div**
Guide: **Prof Shivanand Mendigeri**
Location: **Mahalaxmi Mess, Belagavi**

Team Members

Name of the Student	SRN	Point of View Statement
Krishna patil	02FE22BCI021	Owner of Mahalaxmi Mess near 4th gate , Angol needs a way to manage the payments done by the students of different colleges as some students pay monthly and some yearly. However , there is lack of technical method to verify that who has paid how much and when have they paid.
Maithili Mallapur	02FE22BEE016	
Shreya	02FE22BEE037	
Sankeerna	02FE22BEE030	

Narration

Owner of Mahalaxmi Mess near 4th gate , Angol needs a way to manage the payments done by the students of different colleges as some students pay monthly and some yearly. However , there is lack of technical method to verify that who has paid how much and when have they paid.

Primary stake holder is Savita Badigar,occupation is house wife and qualification is SSLC.Secondary stake holder is Shrinivas Gavade and qualification is 6th Sem of engineering. The pain points are 1. The owner unable to manage the payment done by customer.2.Many people don't know about this mess.3.Many of them did not pay the bill.

1. Defining the Problem: The process of defining the problem involves clearly identifying and understanding the challenge or issue that needs to be addressed. It entails conducting research, gathering information, and analyzing the current situation to define the problem statement accurately. This step is crucial as it sets the foundation for finding effective solutions and guiding the subsequent stages of the problem-solving process.

2. Ideation: Ideation is the phase in which a diverse range of ideas is generated to solve the defined problem. It involves brainstorming, creative thinking, and exploring various perspectives and possibilities. The goal is to generate as many ideas as possible without judgment or evaluation. Through ideation, innovative and novel concepts are developed that can potentially address the problem at hand.

3. Prototyping: Prototyping is the process of creating a tangible representation or a working model of one or more ideas generated during ideation. It involves translating the concepts into physical or digital prototypes that can be tested and evaluated. Prototyping helps visualize and validate ideas, identify flaws or improvements, and gather feedback from stakeholders. It can range from simple paper sketches to interactive prototypes depending on the complexity of the problem and available resources.

4. Testing: Testing involves gathering feedback and evaluating the prototypes to assess their effectiveness and feasibility. It aims to verify the viability of the proposed solutions and identify any necessary adjustments or refinements. User testing, usability studies, and iterative feedback loops are commonly used to gather insights and validate the prototypes. Testing provides valuable data and insights that inform further iterations or help in selecting the most suitable solution.

Feedback about the Course

It is the course where we learnt many things and visited many places as a part of our assignment. We understood the difference between empathy and sympathy and could also understand the problems of the people who are suffering from social problems.

Design thinking promotes out-of-the-box thinking and the exploration of unconventional ideas. It encourages designers to challenge assumptions and approach problems from different angles. This creative problem-solving mindset often leads to innovative and transformative solutions for social issues.

Design Challenge: **REFERENCE BOOKS**

Division: **H Div**

Guide: **Dr. D. C. Patil / Dr. Santosh Nandi**

Location: **Nandan Makkal Dham NGO, Belgavi**

Team Members

Name of the Student	SRN	Point of View Statement
Jatin Patil	02FE22BCI020	Students of Nandan Makkal Dham NGO, Belgavi need a way to improve their English communication so as to pursue their goals and ambition by improving their educational system. However there are no facilities given by management and no proper education inspite of students interest. They were not provided with proper study materials and reference books.
Sakshi Hooli	02FE22BCI039	
Shreya kutre	02FE22BCI043	
Sahil chougala	02FE22BCI038	
Vinay Patil	02FE22BCI057	

Narration

The social challenge faced by students from non-governmental organizations (NGOs) who are weak in the English subject revolves around language barriers and limited opportunities for academic and social growth. NGOs often work with underprivileged or marginalized communities, providing education and support to students who may not have access to quality schooling or resources.

This abstract outlines a proposed initiative aimed at providing assistance to students of a non-governmental organization (NGO) who face challenges in mastering the English language and accessing reference books. The objective is to enhance their English proficiency and academic skills, thereby empowering them with the tools necessary for personal growth and educational success. The initiative involves two primary components: English language support and access to reference materials.

Stakeholders :Primary stakeholders - Students.secondary stakeholders - caretakers , relatives and neighbours and tertiary stakeholders - Hospital and School

Pain points :Limited Educational Opportunities, Resource Constraints, Cultural Sensitivity, Lack of Motivation.

Parental Engagement:Reading Comprehension, Limited Vocabulary, Social and Emotional Impact, Limited Communication Skills

Prototype and Testing:

The "Prototype" reference book features meticulously curated content, carefully organized to provide readers with quick access to key information. Each section delves into specific topics, offering concise explanations, definitions, and relevant examples. Whether you are a student, a professional, or an enthusiast, this book serves as an indispensable tool for understanding complex concepts and exploring various domains.

Feedback about the Course

* We enjoyed the course and found it to be very informative and thought-provoking. We learned a lot about the design thinking process and how it can be used to solve social problems. The course materials were well- organized and the instructor was knowledgeable and engaging.

**DESIGN THINKING
FOR SOCIAL INNOVATION**

Design Challenge: **PARENTS ADOPTION**

Division: **H Div**   Guide: **Dr. D. C. Patil / Dr. Santosh Nandi**

                                        Location: **Old age home from Bhavani nagar, Belagavi**

Team Members

Name of the Student	SRN	Point of View Statement
Shravani Wadikar	02FE22BBM021	People of the old age home from Bhavani nagar, Belagavi, do miss
Ajinkya	02FE22BCI006	their home and willing to go to their home and some people are
Maithili Joshi	02FE22BCI024	suffering from mental illness like Depression, anxiety and
Tejas Ghatge	02FE22BCI052	loneliness and hence have less space for dining and bedroom.
Basagouda koti	02FE22BEE005	How ever there is lack of interest shown by the management to improeve the same

Narration

In the neighborhood of Bhavani Nagar in Belagavi, there exists a heartwarming story of love, compassion, and care. It revolves around the unique initiative taken by a group of parents who came together to establish an adoption center and an old age home.

Driven by a shared desire to make a positive impact on society, these parents recognized the need to provide a safe and nurturing environment for both children without families and senior citizens who found themselves alone in their later years. They believed that every individual, irrespective of age, deserves love, care, and a sense of belonging. To facilitate online donations and volunteer registrations, the website should integrate secure payment gateways and registration systems. This ensures a seamless experience for users who wish to contribute or get involved. The process should be user-friendly, with clear instructions and options for recurring donations or specific volunteering opportunities. Creating a website for the Parents Adoption and Old Age Home in Bhavani Nagar, Belagavi, can significantly enhance its visibility and impact in the community. By defining goals, organizing content, designing a user-friendly interface, and integrating essential functionalities, the website can effectively engage with visitors, attract support, and promote the organization's noble cause.

Feedback about the Course

As part of our project for the course, we visited several locations and learned a great deal. We knew the difference between compassion and empathy, and we were able to comprehend the difficulties faced by those who are afflicted by societal issues. The practice of design thinking encourages original thought and the investigation of novel concepts. It nudges designers to question presumptions and take a fresh look at issues. This inventive approach to tackling problems frequently results in ground-breaking and paradigm-shifting solutions to societal problems.

Bhavani Nagar, Belagavi, 590006, KA, India

Latitude
15.8354° N

Longitude
74.4773° E

Local 12:15:22 PM
GMT 06:45:22 AM

Altitude 775.9 meters
Sunday, 04/23/2023

Design Challenge: **CREATING SIGN BOARDS**

Division: **H Div**

Guide: **Dr. D. C. Patil / Dr. Santosh Nandi**

Location: **Civil Hospital, Belagavi**

Team Members

Name of the Student	SRN	Point of View Statement
VINAYAK GURAV	02FE22BBM020	The patient of civil hospital, Belagavi get confused to find specific
SNEHA PATIL	02FE22BBM016	department for treatment, this sometimes impact waiting time
VISHWAJEET MANE	02FE22BBM006	and overall patient experience this can lead to delay in waiting
SHRIHARI NARAGUND	02FE22BEE038	time. However there is lack of support from government inspite of
ANJITA KAMBLE	02FE22BEE024	interest of the staff to provide valid directions.

Narration

The selected social challenge among the 5 community visit is the civil hospital which is located near chennamma circle ,belgavi. The problem notice by us was about overcrowding due to which people couldn't find the proper direction and the patience couldn't get treatment on time. So we decided of helping people through an innovative idea like creating of sign board which contains a suitable information, direction by which people gets benefited. The stakeholders of our challenge are: primary stakeholders: patients, family members, secondary stakeholders :staff members, workers, pharmacist. Tertiary stakeholders: government, raw material suppliers .

According to the empathy map we implemented our gain points such as visitors may have difficulties in finding the way in the hospital (room no, respected doctors chamber) etc, patience may experience delay of time in treatment in emergency.

The ideate of our challenge is generated from the brainstorming concept where we generated 25 ideas from the concept.Among the 25 ideas we select which has high impact and high feasibility that is creating of sign boards which would help people and even staff members in finding the appropriate directions. The prototype of our challenge will start with the creating of sign board with proper information and direction.

Feedback about the Course

We were able to learn about empathy , communication and team work ,Through the community visit we understood the necessity of common public visiting the hospital and were able to get an insight into the lives of workers as well as the patient . The classes happened very existing we often look forward to attending the classes the presentation have helped us development confidence in short period of time. We actively participated in collaborative activities and demonstrated excellent teamwork skills. They effectively communicated their ideas, listened to others, and contributed constructively to group discussions and projects.

Design Challenge: **SMART IRRIGATION SYSTEM**

Division: **H Div**

Guide: **Prof. Shivanand Mendigeri**

Location: **Plant Nest Nursery, Belagavi**

Team Members

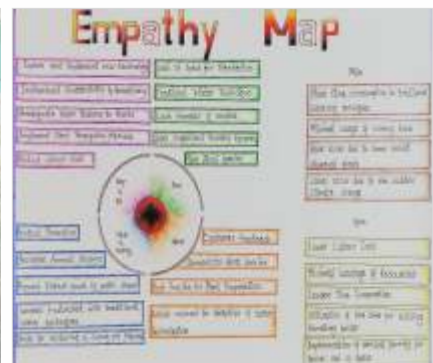| Name of the Student	SRN	Point of View Statement
Aditya D V	02FE22BEE003	The Plant Nest Nursery is situated in Brahma Nagar Belagavi needs a way to improve the watering techniques for the healthy and timely growth of the plants. However there is no new watering technique adopted by the owner and workers of the plant nursery.
Hiba Ashekhan	02FE22BEE012	
Revanasidda Dashavant	02FE22BEE026	
Sukanya Savadatti	02FE22BBM018	
Supriya Mumbaraddi	02FE22BCI053	

Narration

Plant Nest Nursery, situated in Brahma Nagar, Udyambag, Belagavi, is a plant nursery that specializes in raising seedlings for planting purposes. Its main objective is to provide high-quality elite planting material for the establishment of new orchards. The nursery plays a vital role in plant propagation, contributing to biodiversity preservation and sustainable land management. During our community visit to the nursery, we identified certain issues, such as the use of manual watering techniques and the lack of available space.

To address these challenges, we propose the implementation of a smart irrigation system that utilizes soil sensors and promotes vertical farming. This solution aims to maximize space utilization, reduce time consumption, mitigate the risk of plant pests, ensure proper watering for consistent plant growth, and optimize water usage. Through an ideation process, we generated a list of key benefits, including time-saving through automated watering, efficient utilization of available space, improved plant quality with reduced pest risks, consistent and healthy plant growth, and cost savings through reduced water consumption.

Based on the ideas generated during the ideation process, we developed a prototype for our social challenge. The prototype is an automated water supply system that measures soil moisture content to provide the appropriate quantity of water. We conducted testing of the prototype at the nursery site, with the presence of the stakeholders, taking into consideration all the concerns mentioned above.

Feedback about the Course

The social innovation course was a rewarding experience, providing a comprehensive understanding of social issues and fostering creativity. Real-world examples and collaborative activities enriched the learning. Knowledgeable instructors and a supportive network made it an exceptional experience. Highly recommended for making a positive social impact.

Design Challenge: **"CREATIVE TEACHING
- LEARNING FOR ENHANCING EDUCATION"**

Division: **H Div**   Guide: **Prof. Shivanand Mendigeri**

Location: **Ashra Vidya Shram, Belagavi**

Team Members

Name of the Student	SRN	Point of View Statement
Sonal A Pada.	02FE22BEE041	Children of Ashra Vidya Ashram of shivaji colony tilakwadi belgaum,need support and help in learning new things by the concept of creative learning to understand the concepts clearly and pursue their goals and ambitions. However there is lack of support from their parents due to their personal problems .Inspite of their intrest in learning new things .
Sushmeeta S Basaragi.	02FE22BEE046	
Vaishnavi V Amasi	02FE22BEE052	
Ashwini H Byakod	02FE22BEE004	
Jagannath Malode	02FE22BCI018	

Narration

This social innovation project aims to revolutionize the teaching and learning experience at Ashra Vidya Ashram by introducing innovative models of mathematics and science education. By combining the power of visual aids and descriptive charts, we seek to foster creativity, engagement, and deeper understanding among students.

Traditional teaching methods often rely heavily on textbooks and lectures, which may not effectively cater to the diverse learning styles and needs of students. In contrast, our project proposes the development of interactive models that bring abstract concepts through visual representation and detailed explanations.

The project team will collaboratively design and construct a series of math and science models that cover difficult topics. These models will incorporate charts and diagrams, showcasing the relationships, principles, and applications of these concepts in a visually appealing and accessible manner.

By employing these models in the classroom, we aim to achieve several objectives. First, the visual and tactile nature of the models will capture students' attention and stimulate their curiosity, encouraging active participation in the learning process. Second, the descriptive charts accompanying each model will provide comprehensive explanations, helping students grasp the underlying principles and mechanisms more effectively.

Moreover, the models will facilitate hands-on learning experiences, allowing students to manipulate and explore concepts in a tangible way. This approach encourages experimentation, problem-solving, and critical thinking, fostering a deeper understanding of the subject matter.

Through this social innovation project, we envision a transformative learning environment at Ashra Vidya Ashram, where students develop a genuine love for mathematics and science. By engaging their creativity and curiosity, we aim to nurture a generation of confident, independent learners who are well-equipped to tackle the challenges of the modern world.

Feedback about the Course

The course "Design Thinking for Social Innovation" is an eye-opening journey that equips participants with the tools and mindset to tackle complex social challenges creatively. Through hands-on exercises and insightful lectures, it fosters a deep understanding of user-centered design principles and empowers individuals to create impactful solutions that address pressing societal issues. Highly recommended for aspiring change-makers and those passionate about making a positive difference in the world.

Design Challenge: **DIGITAL CROWD MANAGEMENT SYSTEM**

Division: **H Div**   Guide: **Prof. Shivanand Mendigeri**

Location: **D-Mart, Belagavi**

Team Members

Name of the Student	SRN	Point of View Statement
Anniya jagirdar	02FE22BBM003	D-Mart located near 3rd gate . Customers of D-Mart need a way to
Neha	02FE22BEE018	avoid the crowded time for their shopping ,however there is too
Hemant Shriramudu	02FE22BCI016	much rush in billing time ,due to this a lot of time is wasted in
Varun Gani	02FE22BCI056	shopping and there is no support from the employees and
Sakshi Potdar	02FE22BCI040	management of D-Mart.

Narration

D-Mart located near 3rd gate . Customers of D-Mart to manage the avoid the overcrowding time and employers of the dmart wants crowd management system as many customers,local community,students and many more are facing problems in the mart and also in the parking yard due to the crowd. The following are the steps what we followed to adress the social challenge through Design thinking process.

1. Defining the Problem: The process of defining the problem involves clearly identifying and understanding the challenge or issue that needs to be addressed. It entails conducting research, gathering information, and analyzing the current situation to define the problem statement accurately. This step is crucial as it sets the foundation for finding effective solutions and guiding the subsequent stages of the problem-solving process.

2. Ideation: Ideation is the phase in which a diverse range of ideas is generated to solve the defined problem. It involves brainstorming, creative thinking, and exploring various perspectives and possibilities. The goal is to generate as many ideas as possible without judgment or evaluation. Through ideation, innovative and novel concepts are developed that can potentially address the problem at hand.

3. Prototyping: Prototyping is the process of creating a tangible representation or a working model of one or more ideas generated during ideation. It involves translating the concepts into physical or digital prototypes that can be tested and evaluated. Prototyping helps visualize and validate ideas, identify flaws or improvements, and gather feedback from stakeholders. It can range from simple paper sketches to interactive prototypes depending on the complexity of the problem and available resources.

4. Testing: Testing involves gathering feedback and evaluating the prototypes to assess their effectiveness and feasibility. It aims to verify the viability of the proposed solutions and identify any necessary adjustments or refinements. User testing, usability studies, and iterative feedback loops are commonly used to gather insights and validate the prototypes. Testing provides valuable data and insights that inform further iterations or help in selecting the most suitable solution.

Feedback about the Course

The social innovation course was a rewarding experience, providing a comprehensive understanding of social issues and fostering creativity. Real-world examples and collaborative activities enriched the learning. Knowledgeable instructors and a supportive network made it an exceptional experience. Highly recommended for making a positive social impact.

Design Challenge: **SMART LEARNING THROUGH AUDIO BOOK**

Division: **H Div**

Guide: **Prof. Shivanand Mendigeri**

Location:

Team Members

Name of the Student	SRN	Point of View Statement
Triveni Chavhan	02FE22BEE049	Disabled students of Samarathnam trust ,Belagavi needs a way to
S Susila	02FE22BEE027	learn things much better at the trust. They need to pursue their
Shivani Khanagaonkar	02FE22BEE032	goals and achieve them .However, they are slow learners and
Gagan Rolli	02FE22BEE010	have lack of sensory experience .They have lack of support from
Revansiddesh Kuragodi	02FE22BBM012	their parents due to some financial problems and busy schedule .So they need a proper education and support.

Narration

We observed many children, women,men all types of people who were blind, deaf and SHI members who don't know to speak or they can listen. For such people the trust teaches them sign language to understand and to learn the things better. Stakeholders are Blind students, Teachers Management and NGO. The following are the steps what we followed to adress the social challenge through Design thinking process.

1. Defining the Problem: The process of defining the problem involves clearly identifying and understanding the challenge or issue that needs to be addressed. It entails conducting research, gathering information, and analyzing the current situation to define the problem statement accurately. This step is crucial as it sets the foundation for finding effective solutions and guiding the subsequent stages of the problem-solving process.

2. Ideation: Ideation is the phase in which a diverse range of ideas is generated to solve the defined problem. It involves brainstorming, creative thinking, and exploring various perspectives and possibilities. The goal is to generate as many ideas as possible without judgment or evaluation. Through ideation, innovative and novel concepts are developed that can potentially address the problem at hand.

3. Prototyping: Prototyping is the process of creating a tangible representation or a working model of one or more ideas generated during ideation. It involves translating the concepts into physical or digital prototypes that can be tested and evaluated. Prototyping helps visualize and validate ideas, identify flaws or improvements, and gather feedback from stakeholders. It can range from simple paper sketches to interactive prototypes depending on the complexity of the problem and available resources.

4. Testing: Testing involves gathering feedback and evaluating the prototypes to assess their effectiveness and feasibility. It aims to verify the viability of the proposed solutions and identify any necessary adjustments or refinements. User testing, usability studies, and iterative feedback loops are commonly used to gather insights and validate the prototypes. Testing provides valuable data and insights that inform further iterations or help in selecting the most suitable solution.

Feedback about the Course

The course "Design Thinking for Social Innovation" is an eye-opening journey that equips participants with the tools and mindset to tackle complex social challenges creatively.

Design Challenge: **YATRA SHUKLA TO SAMARATHANAM TRUST**

Division: **I Div**　　　　　　Guide: 　**Prof. Shivali H.**

　　　　　　　　　　　　　　Location: 　Samarthanam Trust, Belagavi

Team Members

Name of the Student	SRN	Point of View Statement
Vaishnavi Bhasme	02FE22BEE051	Students of Samarathanam Trust for physically disabled, located in belgaum needs a way to walk and move independently without any human support. However, due to lack of funding to their trust, automated wheel-chairs are not possible to afford, though they are interested to afford low cost, automatic wheelchair for their independent movement.
Om C patil	02FE22BEE020	
Varda kamat	02FE22BCI055	
Vaishnavi kustagi	02FE22BCI054	
Meghraj patil	02FE22BCI027	

Narration

The identified social challenge i.e. independent movement of physically disabled is being addressed by the present design thinking group. Therefore, the group is mainly concentrating on manufacturing of voice and gesture controlled wheelchair. The handicapped or physically disabled can control wheelchair by his/her voice or joystick. The group is also trying to provide a mobile operated app where he/she can access the wheelchair through the app.

Primary Stakeholders- Handicapped persons, Students, Manager.

Secondary Stakeholders - Cook, Housemates, Teachers, Head of Department.

Tertiary Stakeholders- Family, Institutes, Friends

Pain points are Parents have low income, There is no portable wheelchair, Students feel there is lack of computers and Trust is having low funding

The process of defining the problem is lack of fundings which leads to not having a proper wheelchair which results to dependent movement.

Ideation

> Brainstorming - wheelchair with radem lights, app control wheelchair, suspension wheelchair, app control system in vehicles, nano tech for body vehicles, self feed wheelchair, jet engines to vehicles, metallic wings to vehicles, gears to wheelchair, airborne to vehicles, virtual transportation, height adjustable vechiles , metro station everywhere, less consumption of fuel, CNF in bikes, AI vechiles , teleportation, self support bot, airbags in bikes, 360° upper rotation of vechiles, water as fuel in vechiles, thinner wheels, time traveling machine, sky rope way

> Idea filtering is a feasibility vs impact graph were we divided brainstorming ideas into four parts one can be choosen YES, MAYBE, NO

> Idea evaluation

We alloted the score and we selected the app and voice controlled wheelchair

> SCAMPER

Substituted-combine-adapt-modify-put to other use-eliminate-reuse for our selected idea

In Prototyping we approach the tinkering lab in charge for permission and we granted then we collected resources to manufacture wheelchair and done design and measurements and mechanical operations for external body then we did the internal circuit and programmed it and at last we assembled all the parts of wheelchair.

Feedback about the Course

It's really good for knowledgeable and skilled project. Learnt to emphasize the people, solved there problems and try to bring final solution by following the process of Design Thinking for Social Innovation.

Design Challenge:
Division: I Div

WORKING BOT FOR A MESS

Guide: **Prof. Shivali H.**
Location: Near KLE Technological University, Udyambag, Belagavi

Team Members

Name of the Student	SRN
Manish Sabnis	02FE22BCI026
Priyal Deshinge	02FE22BBM010
Nandish Goudar	02FE22BEE017
Suvidha Sail	02FE22BEE047
Jagannath Magadum	02FE22BCI019

Point of View Statement

The workers of a mess located in Udyambag, Belagavi need a way to clean the tables efficiently to solve the issue of cleanliness because there is a huge problem of slow cleaning, food wastage, and dirty tables. Therefore the requirement of an efficient cleaner that will not make the customers wait for cleaning of the table was expected.

Narration

Sai Mess, located in Udyambag - 590008, faced the issue of cleanliness that rose due to the extreme rush of customers and their demands. The social challenge was identified after the conduction of a community visit where the team visited the site and conducted an interview with the people present there. The community visit was in the Empathy stage, the first stage of the Design Thinking for Social Innovation, and ended with the identification of stakeholders. The stakeholders were identified as follows:

Primary Stakeholders - The Cleaners and The Chefs
Secondary Stakeholders - The Customers and The Owner
Tertiary Stakeholders - The Staff (Non-working).

The stakeholder identification gave way to the Define step of the Design Thinking of Social Innovation in which another community visit was conducted to gain an insight into the pains of the stakeholders through a questionnaire developed by the team. The pain points were as follows:

1) The cleanliness is slow.
2) Customers waste food.
3) Tables are very dirty.
4) Customers cheat.
5) Customers have to wait for table cleaning.

An affinity map and an empathy map were formed which led to the formation of the POV statement. The POV statement identified our problem and paved the way for the further steps of Design Thinking for Social Innovation. The team reached the Ideate stage in which, the team first brainstormed 25 ideas that can possibly solve the social challenge. These 25 ideas were filtered using an Impact v/s Feasibility chart and the most sustainable ideas were identified. These ideas were evaluated using an Idea Evaluation matrix that identified our solution - A Cleaning Bot. The idea of the cleaning bot then underwent the refining process using the SCAMPER technique. These processes led to the finalization of the idea and the prototyping stage began.

The team began working on the prototype which could achieve the purpose of solving the social challenge identified. The team built the model following an action plan that was developed by the team and verified by the mentor. All necessary components were acquired and the model was built that achieved the purpose of cleaning.

The cleaning bot built by the team was then tested under several cases and then taken to the site for field testing and feedback. The operations of the bot were taught to the cleaners, chefs, and the owner. The response was documented which was very positive and concluded the process of Design Thinking for Social Innovation wherein the team learnt to use engineering knowledge to build a working bot for a mess to solve the issue of cleanliness.

Feedback about the Course

Design Thinking for Social Innovation has been an absolute journey up until now. We came across a lot of hardworking, self-reliant, determined, persistent, and strong people that inspired us to keep moving in life despite all the hardships that we face.

Design Challenge: **WEBSITE FOR SHANTAI VRUDHASHRAM**

Division: **I Div**

Guide: **Prof. Shivali H.**

Location: Bamanwadi, Belagavi

Team Members

Name of the Student	SRN
Swarali Desai	02FE22BBM019
Krutik Patil	02FE22BCI022
Sudiksha Hanji	02FE22BBM017
Srushti Sarasatti	02FE22BCI049
Akshay Lokapurmath	02FE22BCS180

Point of View Statement

The administrative holders of SHANTAI VRIDDHASHRAM Belagavi needs away to facilitate the publicity of their Ashram in order to gain better donations from society. However due to lack of publicity there is less awareness about this Ashram among the people and society. Therefore, the administrative management excepts some social media publicity.

Narration

The Shantai Vriddhashram in Bamanwadi, Karnataka, 590001, faces significant challenges that impede its growth and outreach. The ashram primarily struggles with a lack of publicity and inadequate connectivity to urban areas. Insufficient public awareness limits its ability to attract support and resources. To address these challenges, the following remedies are proposed: establishing an online presence, engaging in community outreach, collaborating with NGOs and government agencies, and organizing fundraising initiatives. By implementing these remedies and leveraging social platforms for publicity, the ashram can enhance its visibility, connectivity, and sustainability. This highlights the importance of utilizing digital platforms to promote the ashram's mission of providing care and support to elderly residents, thereby enabling its growth and fulfillment of its objectives.

Feedback about the Course

Social innovation was an incredibly eye-opening and transformative experience. The course content was thought-provoking, challenging us to think critically about the social issues plaguing our world today.One aspect that stood out was the emphasis on practicality and real-world application.Rather than simply discussing theories and concepts, the course actively encouraged us to engage in hands-on projects and collaborate with local organizations. This practical approach helped to develop a deeper understanding of the challenges faced by communities and the potential for innovative solutions.Social innovation not only equips you with the necessary knowledge and skills but also instills a sense of purpose and motivation to contribute to a better world.

Design Challenge: **JUST PARK**

Division: **I Div**

Guide: **Prof. Shivali H.**

Location: KLE Technological University, Belagavi Campus.

Team Members

Name of the Student	SRN	Point of View Statement
Aamir Bagali	02FE22BCI001	Students and Staff of KLE Dr. M. S. Sheshgiri College of Engineering and
Aditya Koli	02FE22BCI004	Technology, Belagavi. Needs a way to park their vehicles systematically
Ananya Banahatti	02FE22BCI008	without any hassle and rush. However, the issue of congested parking is a
Chetan Belagavi	02FE22BCI013	long time problem of the college during peak hours. The students and staff
Esha Yalagi	02FE22BCI015	along with hostelites face the difficulties like not having enough space to park their vehicles or walk.

Narration

The parking space at KLE Dr. MSSCET in Belagavi has become a social challenge due to the lack of available parking spots and the issue of messy surroundings. This inconvenience affects professors, staff, and students who struggle to find a secure parking space. The primary stakeholders include professors/staff and students, while secondary stakeholders encompass the bank, cafe, college authorities, and security. Tertiary stakeholders consist of hostilities and visitors. Pain points include confusion in entry and exit, the absence of alternative parking spaces on campus, inconvenience caused by nearby construction work. and students parking vehicles haphazardly.

To address the parking challenge, a process of problem definition and ideation was undertaken. Brainstorming sessions generated 25 ideas, which were filtered into categories of "can be chosen." "may be," "no," and "yes." After careful consideration, the team settled on a solution: a simple app or website that displays the number of available parking slots and allows users to book or unbook them. The app/website is made available for free to the users. This solution aims to bring order to the parking process, save time, and provide a systematic approach for students and staff members at KLE TECH BELAGAVI CAMPUS.

The prototyping phase involved the development of the chosen idea: an app/website with features such as displaying the number of empty parking slots and offering the option to book or unbook them. The app/website was designed to be user-friendly and easy to use. Booked or occupied slots are displayed in blue colour to indicate their status. The main screen of the app/website provides information on the number of empty slots available for parking. This solution aims to improve the parking experience and alleviate the inconvenience caused by the lack of parking spaces at KLE Dr. MSSCET.

Feedback about the Course

We had the incredible opportunity to participate in an exceptional course where we had the privilege of meeting a diverse group of individuals. Through engaging with them, We gained valuable insights into their unique challenges and actively worked towards finding meaningful solutions. Our journey was blessed with the guidance and mentorship of the remarkable Shivali mam, whose expertise and support made our experience truly exceptional.

Design Challenge: **POOR WASTE MANAGEMENT OF FRUITS AND VEGETABLES**

Division: **I Div**

Guide: **Prof. Shivali H.**

Location: Raviwar Peth, Belagavi

Team Members

Name of the Student	SRN
Soujanya Bisalapur	02FE22BEE042
Sakshi Kadlibuddi	02FE22BEE029
Tahirah Mohi ud din	02FE22BCS165
Sai Pavan	02FE22BBM013
Omkar Basvekar	02FE22BCS061

Point of View Statement

Vegetable vendors of Raviwar peth located in Belagavi, needs a way to dispose the waste & properly manage the vegetable & fruit disposal wastes . However , there is lack of support from the vendors , customers , local society & city corporation in maintaining the hygiene of the wholesale market , though thus vendors want the market to be dispose the waste systematically.

Narration

Wholesale Vegetable Vendors of Raviwar Peth located in Belagavi found their surrounding environment very dirty. The flies and smell nuisance were posing lots of problems for everybody residing in that area. The surrounding was turning out dirty because of the vegetable and fruit wastes that was being generated by the wholesale vegetable and fruit market. Therefore, all the residents needed a way to dispose the waste and properly manage the vegetable and fruit disposal wastes.

Local societies & vendors were getting affected by the mosquitoes and flies that were breeding because of the waste generated. The people with low immunity affects the most and the childrens moving around had the adverse effect of the same. It was also oserved that, carelessness was shown by the vegetable vendors, customers and city corporation.

The present social challenge identified is , least concentration on disposal and management of vegetable and fruit wastes that are being generated in the wholesale market. Thus, for the same the team is trying to come up with the solution of providing them composting baskets which will help in proper disposal and management of the wastage of fruits & vegetables. Also it can generate revenue for the further maintainance of the wholesale market by creating organic manure as a fertilizer for the home plants.

Feedback about the Course

Social innovations is not just a course, it is an Experience that we gain. Social innovation usually focus on exploring Innovation approaches to addressing social & environmental challenges .This course includes topics like case study , Empathy , group projects, etc to equip student with the knowledge & skill needed to develop & implement creative solutions to complex societal problem.

Design Challenge: **STREAMLINING BLOOD DONATION**

Division: **I Div**

Guide: **Prof. S. S. Nesaragi**

Location: Sadashivanagar Belagavi

Team Members

Name of the Student	SRN	Point of View Statement
Sanskruti Bedasur	02FE22BBM 014	Vijay hospital Sadashivanagar Belagavi blood bank needs a
Soumya sampagavi	02FE22BEE043	solution to streamline the blood donation process in order
Suma Daddimani	02FE 22 BEE045	to{ensure efficient and timely access to blood for patients in need
Praneeta Marakatti	02FE22BCI031	however there are challenges such as{lack of coordination
Afifa Shaikh	02FE22BCI005	between the blood banks and hospitals difficulty in finding

suitable blood donors and inadequate information sharing}that hinder the smooth functioning of blood donation system resulting in delay and potential risks to patient health.

Narration

Abstract: The project aims to address the challenge of streamlining the connection between blood donors and hospitals/blood patients acceptors in urban areas. The primary focus is on developing a user-friendly website that serves as a centralized platform for facilitating blood donations and transfusions. The website will provide a seamless interface for blood donors to register, find nearby donation centers, and receive updates on urgent blood needs. Additionally, hospitals and blood patients acceptors will have access to a comprehensive database of eligible donors, enabling them to efficiently match and request blood units. The project seeks to leverage technology and user-centric design to enhance the efficiency, accessibility, and safety of the blood donation process. By connecting the right donors with the right patients at the right time, the project aims to save lives and improve healthcare outcomes.

Feedback about the Course

Overall, I found the course to be informative and engaging, and I appreciate the opportunity to learn about the intersection of design thinking and social innovation steps lile stake holder information, affinity map, empathy map brainstorming sessions, idea evaluation, idea filtration and prototyping. Firstly, I found the content and curriculum to be comprehensive and well-structured. One aspect that I particularly appreciated was the emphasis on practical exercises and projects. The hands-on activities and real-world projects allowed me to apply the design thinking process in a meaningful way. I appreciated the constructive feedback provided by both the instructors and my peers. In terms of practical relevance, the course effectively linked design thinking principles to social innovation. The exploration of real-world examples and challenges provided a tangible understanding of how design thinking can create positive social impact. Lastly, I would like to express my appreciation for the supportive resources provided throughout the course.

Design Challenge: **SMART CANE**

Division: **I Div**   Guide: **Prof. S. S. Nesaragi**
                                         Location: Nehru Nagar, Belagavi

Team Members

Name of the Student	SRN	Point of View Statement
Soham Mali	02FE22BCI025	
Shreesakshi Gachhi	02FE22BEE034	
Rahul Kulkarni	02FE22BCI034	
Vidya. Shidlihal	02FE22BEE053	
YuvarajParagond	02FE22BEE056	

Point of View Statement

The children of Maheshwari Blind School situated in Nehru Nagar Belagavi need a Smart Cane to utilise the various facilities available for the blind children at the school   to pursue their goals and ambitions to fulfil their dreams. However, there is (sometimes) lack of support from parents due to personal challenges. Like lack of availability of better blind schools in their areas, the ignorance faced by the blind children from the society, only sympathy is shown to them, low income of parents, inspite of their interest to educate their children.

Narration

We visited many places and found out numerous Social Challenges. The one which we selected from them all is to provide a technical solution to the problem that we found out. We found out the children of Maheshwari Blind School are facing problem in walking confidently. So we as Engineers tried to give a solution to their problem. We are going to device a SMART CANE which can give them VOICE ASSISTANCE and inform them that an obstacle is being detected. Our Primary Stakeholders are the Children and Care takers/Warden IN charge . Then our Secondary stakeholders are teachers and parents and then comes the tertiary stakeholders as Principal and the administration. The pain points are Lack of Training and education, Poorly maintained equipment's of walking, Financial difficulties.

Then now comes the prototyping phase wherein we faced a lot of issues such as preparing the code and testing all Electric components as well as Electrical circuits. But even after facing hurdles we finally prepared the code for the circuit and tested it numerous times for appropriate results. Then somewhere we got confidence and finally we completed the SMART CANE.

Now, comes the testing phase wherein this was actually our test where we get to know that the product which we have made is it meeting the actual requirement of the children. We found out that the children were easily using the SMART CANE and they felt happy after using it .So, Therefore we got to know that the product which we have made has reached it proper destiny. The children as well as the Stakeholders were happy to see our project working as per their expectations and even we were happy to see the joy of the Children.

Feedback about the Course

The course was excellent as we all learnt how to reach out to the Society and after rectifying their issues how to define a problem and provide technical solutions to their issue. Design thinking and social innovation steps and understanding about stake holder information, affinity map, empathy map brainstorming sessions, idea evaluation, idea filtration and prototyping. As a part of this course we met new people and learnt a lot of new things.This course gave me extraordinary tools for the idea generation process; it helped me understand what a real brainstorming session is and, more importantly, it changed my mindset for the way I look at things in my Organization. These include: Creativity and Innovation, Critical Thinking and Problem Solving.

Design Thinking is a way of thinking and working that helps us to define and solve problems. It is a non-linear, iterative and human-centred process that helps us to reframe problems as opportunities.

Design Challenge:

EXPLORING CREATIVITY

Division: **J Div**

Guide: **Prof. Sanjeev Janawade**

Location:

Team Members

Name of the Student	SRN	Point of View Statement
POOJA HIREMATH	02FE22BEE021	Children of Anganwadi need a way to utilize the implementation
ZAVERIYA S	02FE22BBM022	change that prioritize creative learning approaches is crucial to
VISHWANATH S	02FE22BEE055	empower children and promote their holistic development in
RIHAN A	02FE22BCI037	order to become confident , increase creative thinking, be
TASMIYA N	02FE22BEE048	innovative and capable of facing the challenges of future.

However there is lack of support from government, like not providing proper resources and material that are useful for learning.

Narration

THESE ARE SOME MEASURE ISSUES WHICH ARE NOTICE IN ANGANWADI.

1. Lack of resources: Anganwadi centers often lack the necessary resources and materials required for creative activities. This can include art supplies, toys, books, and other materials that can stimulate a child's imagination and creativity.

2. Lack of training: Anganwadi workers may not have sufficient training or knowledge on how to engage children in creative activities. This can lead to a lack of ideas and creativity when it comes to planning and executing activities.

3. Emphasis on rote learning: Many anganwadi centers prioritize rote learning and memorization over creative thinking and problem-solving. This can discourage children from exploring their creativity and limit their potential for innovation.

4. Limited exposure to diverse experiences: Children in anganwadi centers may have limited exposure to diverse experiences and perspectives, which can inhibit their creativity. For example, if they are not exposed to different types of music, art, or literature, they may not have the opportunity to explore their interests and develop their own creative abilities.

Feedback about the Course

Our team demonstrated excellent collaboration, empathy, and a user-centered approach throughout the Design Thinking and Social Innovation course. We generated creative ideas and generated refining solutions based on user feedback. We learned many different things, overall it was a very good experience.

Design Challenge: **TREATZY**

Division: **J Div**

Guide: **Prof Sanjeev Janawade**

Location: PashuChikitsalaya, Angol, Belagavi

Team Members

Name of the Student	SRN	Point of View Statement
Aarya Ningaraddiyavar	02FE22BCI002	Government clinic of Belgaum needs an android / iOS application because they struggle to maintain medical records of their pet, resulting in difficulties in tracking vaccination history, treatment plans and overall healthcare records. Therefore, the pet owners need a way to access affordable and reliable veterinary care to ensure good health and well being of their beloved pets.
Amogh Kulkarni	02FE22BCI007	
Pratik Kesarkar	02FE22BCI032	
Bhakti Malwankar	02FE22BCI012	
Madhura Patil	02FE22BCI023	

Narration

This abstract introduces a veterinary app specifically focused on revolutionising appointment scheduling and telemedicine services in the field of veterinary care. The app aims to provide pet owners with a user-friendly and convenient platform to schedule appointments with veterinary professionals, reducing wait times and improving accessibility to veterinary care.

Additionally, the app offers telemedicine consultations, allowing pet owners to remotely connect with veterinarians for initial evaluations, follow-ups, and non-emergency consultations. By leveraging technology, this veterinary app streamlines the appointment process, enhances convenience, and promotes efficient and effective care for animals, ultimately improving the overall veterinary healthcare experience.

Feedback about the Course

Design thinking and social innovation have transformed my student journey, empowering me to drive meaningful change. Through creative problem-solving and a user-centered approach, I have gained valuable insights into addressing real-world challenges. Collaborating with diverse teams and embracing an iterative mindset, I have honed my skills and resilience. The prospect of making a tangible impact motivates me, despite the challenges of time constraints and balancing structure with creativity. Direct student feedback is crucial for continuous improvement and the empowerment of future change-makers.

Design Challenge: **SMART FARMING**

Division: **J Div**

Guide: **Prof. Sanjeev Janawade**

Location: Sahyadri colony, Angol.

Team Members

Name of the Student	SRN	Point of View Statement
Atharva Bhatkande	02FE22BCI011	Farmers of Angol , Belagavi need a user friendly and IOT enabled monitoring device that provides real time weather and soil data, which helps them to make decisions about irrigation and resource management. However, there is lack of technical knowledge and information about such devices. The devices available in the market are expensive .Also, there's less support from the government promoting such monitoring devices.
Altamash Mannikeri	02FE22BBM002	
Sumeet Kamble	02FE22BCI050	
Khushi Gunddappanavar	02FE22BBM005	
Priya Bennalamath	02FE22BCI033	

Narration

The social challenge at hand is the need for effective soil monitoring to study soil health and productivity issues in a specific location. Soil monitoring is crucial for sustainable agricultural practices, environmental conservation, and land management. The stakeholders involved in soil monitoring include farmers, landowner. The pain points associated with soil monitoring include soil degradation, nutrient deficiencies, erosion, and contamination.

To define the problem, an assessment of soil conditions in the target location was conducted. Soil samples were collected from various sites within the area and analyzed for key parameters such as, soil temperature, soil moisture and humidity.

Ideation sessions were held with stakeholders to brainstorm potential solutions for effective soil monitoring. Various ideas were generated, including the use of advanced technologies such as sensor networks, and data analytics. From these ideas, a few promising solutions were selected for further development. Prototypes of the selected solutions, such as soil moisture , temperature and humidity sensors were bought and tested.

In conclusion, addressing the social challenge of effective soil monitoring requires collaboration among stakeholders. The problem was defined through data collection, analysis, and stakeholder engagement. Ideation sessions led to the development of potential solutions, which were prototyped and tested. The next step involves scaling up the most effective solutions to enable accurate and timely soil monitoring, facilitating informed decision-making for sustainable land use practices, and mitigating the pain points associated with soil health and productivity

Feedback about the Course

Our team demonstrated excellent collaboration, empathy, and a user-centered approach throughout the Design Thinking and Social Innovation course. We generated creative ideas and generated refining solutions based on user feedback. We learned many different things, overall it was a very good experience.

Design Challenge: **AWARENESS ABOUT SAFETY MEASURES IN INDUSTRY SAFETY**

Division: **J Div**

Guide: **Prof. Sanjeev Janawade**

Location: Laxmi nag

Team Members

Name of the Student	SRN	Point of View Statement
Omkar Yametkar	02FE22BCI028	Labours of R.R.metals factory need a way to utilize the facilities
Shreya Patil	02FE22BEE036	available in their industry to achieve safe work practices. There are
Laxmi Hebbali	02FE22BEE015	many challenges faced by workers and their family members due
Kaveri S	02FE22BEE014	to lack of information on safety guidelines . We can overcome
Revansidda	02FE22BCI036	these challenges by creating a culture of safety in work place.

Narration

We visited to an industry named R. R. metal factory near Laxmi Nagar, Machhe. The manager of the factory is Vinayak Patil. There are a of total 30 people who are working in the factory i.e. 25 men and 5 women. This industry converts old useless metal components to new materials. There are so many labours who are working in that industry without wearing mask and hand gloves by this they may get health and skin related issues.

pain points:

1) Physically demanding work leading to fatigue and injuries.

2) Exposure to hazardous materials and potential safety risks.

3) Monotonous and repetitive tasks leading to boredom and low job satisfaction.

4) Frequent technological changes requiring continuous learning and upskilling.

5) limited career growth opportunities.

Feedback about the Course

The making of this project has helped us believe in teamwork and I am grateful to have gotten this opportunity to create something innovative. The great presentation style made this course enjoyable and informative.

Design Challenge: **SOLEWHIZ**
Division: **J Div**   Guide: **Prof. Sanjeev Janawade**
                                             Location: Super market , Belagavi

Team Members

Name of the Student	SRN	Point of View Statement
Monishya Kamble	02FE22BCS054	Manager of the Local supermarkets need a new technique to
Sandesh Arun Chavan	02FE22BCS102	maintain the cleanliness and reduce the load of work subjected
Abhay Patil	02fE22bCS002	on workers of the mall. However there is lack of support from the
Sanika Uttarkar	02FE22BCS105	higher authority due to high market competition, high
Soujanya Mirajkar	02FE22BCS147	expenditure and increase in wages of the workers. Also the
		workers present there have to maintain a regular / schedule of
		cleaning the mall floors during high traffic or maximum crowd."

Narration

Manager of the Local supermarkets need a new technique to maintain the cleanliness and reduce the load of work subjected on workers of the mall. However there is lack of support from the higher authority due to high market competition, high expenditure and increase in wages of the workers. Also the workers present there have to maintain a regular / schedule of cleaning the mall floors during high traffic or maximum crowd."the stake holder expressed the Pain Points likeLow wages,High working hours,Regular cleaning of mall floors,Limited product availability,Spoiled or expired products

The process of defining the problem begins with extensive investigation and analysis of existing   shoe cleaning methods and technology. Understanding user requirements and preference identifying the disadvantages of manual cleaning, and investigating viable solutions are all part of this process. Various concepts & design options for the shoe cleaning machine are created   throughout the ideation process. Creative brainstorming sessions and teamwork among designers and engineers aid in determining the most promising concepts. Ease of use, cleaning efficacy, and durability are all considered. Prototyping is the process of turning a chosen concept into a physical product design. This step entails developing a physical or virtual prototype that represent the machine's functioning and look. Iterative design cycles may be used to develop the prototype and integrate user testing feedback.

Following the development of the prototype, testing is carried out to evaluate its performance and acquire user input. Cleaning efficiency, user experience, durability, and machine safety are all evaluated throughout testing. User feedback identifies areas for improvement and allows essential changes to be made to improve the overall design and functionality.A user-centered approach is used throughout the process to ensure that the shoe cleaning machine efficiently solves the pain points of manual cleaning. This iterative problem-solving approach enables continual refinement and improvement of the machine's design and functionality, resulting in a dependable and user-friendly solution.

Feedback about the Course

Design thinking is an iterative process that encourages experimentation, learning from failure, and continuous improvement. Over all we had a good experience and the course might help us in future.

Design Challenge:
Division: **J Div**

SONIC SNEAKER

Guide: **Prof. Shweta Madiwalar**
Location: Maheshwari blind School, Belagavi

Team Members

Name of the Student	SRN	Point of View Statement
Spandana Navalagund	02FE22BCS151	Children of Maheshwari blind School, Nehru Nagar, Belagavi needs a way to utilise a modern tools to pursue their goals and ambitions. However, due to their Visual impairedness, lack of blind shoes and Lack of Support from Government, they are Unable to participate in events held at School level Competitions.
Smita Ittangi	02FE22BCS137	
Sneha Mahindrakar	02FE22BCS140	
Pooja Patil	02FE22BEE022	
Shraddha Golabhavi	02FE22BEE033	

Narration

Social challenge identified is blind students facing challenge of independent mobility. This is a qualitative study which aims to investigate what blind students experience to be appropriate provision and support in schools. In order to explore the answer, this study examined the proper terms that could be used in educational researches, difficulties that a blind student encountered in study, provision and support that were provided to them in schools, what they considered to be appropriate provision and support for facilitating their study, challenges with the practices and suggestions for improvements. Three totally blind people were invited to participate in this study. Data were collected through semi-structured interviews. All interviews were transcribed for data analysis. Primary stakeholder: Student(Akash) Secondary stakeholder: Teacher (M. S. Doddamani)

Tertiary stakeholder: principal (Anita.M.G) Result showed that the bind students experienced difficulties at three different levels including physical/medical limitations, environmental limitations and they needed extra support on their study. Finding in this study showed that the informants received certain types of provision and support from the government and schools, including guide dogs, long canes, computers, audio programmers, training on computer skills and some one-to-one teaching sections. However, result also indicated that challenges of the practices tended to come from three different levels. At the individual level, the informants experienced a lack of training and support on orientation and mobility. At the teachers level, there was a lack of teacher training and the teachers had little knowledge and skills to support blind students in schools. At the decision-making level, the informants experienced some mismatches between what they actual needed and the provision and support that being provided. In the end, the informants suggested that blind students should be invited to participate in decision-making events, their voice should be heard and they wanted to be decision-makers for their education. Potential implications of this study are that: First, for researchers, educators, and parents to learn what kind of difficulties blind students experience in study. So they will understand when they should provide help and support to a blind student. Second, this study shows some good practices of supporting blind students. The last, the findings from this study might influence policymakers when they decide provision, support and education for blind students in future.

The prototyping stage focuses on designing and developing a functional blind shoe prototype based on the ideated solutions. This involves leveraging emerging technologies and materials to create an ergonomic, comfortable, and sensor-integrated footwear solution. Subsequently, extensive testing is conducted with visually impaired individuals to evaluate the usability, effectiveness, and user satisfaction of the blind shoes.

Feedback about the Course

The social innovation course offers valuable insights and practical tools for addressing complex social and environmental challenges. The course effectively combines theory and practice, providing hands-on experiences and opportunities for interdisciplinary collaboration. It emphasizes user-centered design and ethical considerations, ensuring solutions are relevant and sustainable. The inclusion of guest speakers and field visits enhances the learning experience by exposing students to real-world examples.

Design Challenge: **FARM FURY**

Division: **J Div**

Guide: **Prof. Shweta Madiwalar**

Location: Nath Pai Nagar in Angol

Team Members

Name of the Student	SRN	Point of View Statement
Priya P Prasad	02FE22BCS073	
Sukanya S Walishetti	02FE22BCS157	
Rutika Wagalekar	02FE22BCS088	
Abhinandan S Khare	02FE22BEE001	
Siddharth V Powar	02FE22BCS136	

Point of View Statement

Farmers of Nath Pai Nagar in Angol need a way to effectively utilize the facilities available at their farm in order to create a sustainable, safe, and profitable business. However, they face challenges such as frequent animal attacks, natural calamities, and unpredictable weather conditions. As a result, there is a lack of support from government institutions. Nevertheless, the farmers are determined to produce safe and sustainable crops.

Narration

Wild animals often come into contact with land areas abundant with agriculture crops in search of food. Some of these animals attack those crops while the rest prey on the livestock owned by the farmers and this result in an escalation in human wildlife conflicts. In India, unlike most parts of the world, there is a remarkable tolerance shown by farmers in attacking wildlife but due to the high population figures and loss of lives on both sides, the conflict and loss issues are one of the highest in the world today. We identified the social challenge Frequent animal attack on farmar. The challenge is located in rural communities like Nath Pai Nagar, Angol

Stakeholders: The stakeholders include the people who are affected by this problem, Farmer-Primary stakeholder, Wholesaler-Secondary stakeholder, Customer-Tertiary stake holder. the stake holder expressed the Pain Points: Animal attacks can cause severe physical injuries, ranging from deep wounds and fractures to lacerations and puncture wounds. The problem was defined by conducting interviews with people who live in rural communities, as well as by reviewing existing research on the issue.

Ideation: A number of ideas were generated for how to address the problem, including building electric fence, creating auditory system(buzzer system) etc. A prototype of a auditory system fencing was created to solve the problem of animal attack The prototype was tested to stop the animals from entering the farm, as well as for its ease of use and maintenance.

Feedback about the Course

Practical Application: Students often appreciate courses that provide real-world examples and opportunities to apply social innovation principles to address actual problems. Hands-on projects and case studies can help students develop a deeper understanding of the subject matter.

Interdisciplinary Approach: Social innovation involves integrating knowledge from various fields, such as business, sociology, economics, and environmental studies.

Engagement and Discussion: Active participation and meaningful discussions can enhance the learning experience. Students often appreciate courses that create a supportive and inclusive environment where they can share ideas, debate different perspectives, and learn from their peers.

Practical Skills Development: Courses that focus on developing practical skills, such as design thinking, project management, stakeholder engagement, and impact measurement, can be highly beneficial. Students often appreciate learning tools and techniques that they can directly apply in their future endeavors.

Design Challenge: **NTELLIVOLT**

Division: **J Div**

Guide: **Prof. Shweta Madiwalar**

Location: Angol village, Belagavi

Team Members

Name of the Student	SRN	Point of View Statement
Mahmadsuhan Jamadar	02FE22BCS048	Farmers of Angol village, needs a way to utilize the modern technologies available in market to protect themselves from getting electric shocks. However they have lack of knowledge, training about enhancing safety, optimizing resource utilization and control of electrical. The devices available in the market are expensive .Also, there's less support from the government promoting such monitoring devices.
Priyanka A. Totakar	02FE22BCS074	
Swathi M. K.	02FE22BCS164	
Ranjita Ambali	02FE22BCS077	
Madiwali A Kalasannavar	02FE22BCS046	

Narration

The farmers experience various safety hazards one of them was electrical shocks. The problem is of various regions and the identified region is in Angol, Belagavi. The stake holders are Farmer, his family member and The KEB worker. The farmer's family worriedly waits for the arrival of their members when they are about to initiate the process of irrigating the land by pouring water. People don't have the necessary technical equipment to protect themselves from short circuits. Mishandling of electrical equipment or inadequate safety measures can pose risks of electrical shocks or accidents to the farmers. Operating electric boards and understanding electrical systems may require specialized knowledge, which can be a barrier for some farmers. In the process of Ideation we listed numerous ideas in Idea Generation(Brain storming) and Filtered those ideas in Idea Filtering(Impact vs Feasibility) and finally selecting the idea in Idea Evaluation. In SCAMPER we refined our ideas and arrived at the most feasible solution. In prototyping we took the stakeholder's feedback and arrived at the final idea and refined it in Specification of Solution. In value propotion we arrived at the finalised refined solution which best resolves the users need within the specified constraints.

Feedback about the Course

The Overall experience of the course was very good, we most importantly learned to see the world in a completely different perspective, the way Engineers can resolve various problems that are encountered in the day to day life and of different individuals was very important. The team-work experience and the new knowledge and experience was extremely challenging and joyful at the same time.

Design Challenge:	**FRUIT HARVESTING MACHINE**	
Division: **J Div**	Guide:	**Prof. Shweta Madiwalar**
	Location:	Kallehol village, Belagavi

Team Members

Name of the Student	SRN	Point of View Statement
Abhilash basarikatti	02FE22BCS004	Farmers of Kallehol village needs a way to utilise the modern
Gourish Madyali	02FE22BEE011	facility available in the field of agriculture to pursue their goals
Vivekanand Ramdurg.	02FE22BCS176	and ambition. However there is lack of support from government,
Sumit Fade	02FE22BCS159	due to the challenges like low income, weather condition, lack of
Rahul kamble	02FE22BEE023	modern technology for agricultural field.

Narration

Social challenge: difficulty in plucking fruits from trees like mangos.

Location of challenge:

Farmers of Kallehol village needs a way to utilise the modern facility available in the field of agriculture

Fruit farming has been more challenging than grain farming due to the challenges in its cultivation, harvesting in unstructured environment, high cost of safety during storage and timely distribution due to their short life. Fruit plucking becomes an important part due to its direct relation with the safety of potential return on farmer's investment. After humans started farming, there is step by step changes in fruit plucking techniques. Regardless, this process still remains labor intensive and manual in nature. The population on world is growing at rapid pace and so is the worldwide demand of agricultural products. However, labor shortages have remained a limiting factor in agriculture production. To cope up with the upcoming growth as well as to reduce the wastage of perishable items like fruits, it's important that the agriculture sector brings further automation. Sector needs to tackle the common fruit picking challenges through novel system solutions and improve the current systems. This paper shows the changes and growth in plucking techniques from ancient times to modern day plucking. Paper reviews the manual plucking techniques that involves the intensive risk and crude equipment with manual labors, to modern fruit plucking techniques based on computer vision and robotic systems. The stake holder we met are 1.Primary Stake Holder: WorkerName: Dinesh.2. Secondary Stake Holder: OwnerName: Balkrishna kangralkar.3. Tertiary Stake Holder: CustomerName: Rihan.and the pain points are 1.No appropriate tools for harvesting mangos.2.Difficulties in climbing tall trees.3.Injuries during harvesting due to attack of pests like honeybees.4.Deaths during mango plucking.5.Extra Labour cost. After interview we defined the problems The farmers were facing problem to pluck the mangos form trees like injuries, difficulty in climbing trees deaths etc.using brainstorming we found out 25 ideas regarding our problem statement and selected 5 out of 25 using impact vs suitability map,Using idea evaluation we finalised mango plucking machine.Prototyping is done using electronic equipments and some raw materials we made mango plucking machine.now finally we are testing the various mango plucking techniques .

Feedback about the Course

Social innovation course was very useful for now and upcoming 4 years in our engineering course. This course made us to work in team more conveniently, and also gave lot of information regarding design thinking.

Design Challenge:

NUTRI DRIP

Division: **J Div**

Guide: **Prof. Shweta Madiwalar**
Location: Angol village

Team Members

Name of the Student	SRN	Point of View Statement
Pooja Kugatoli	02FE22BCS065	Farmers of Angol village needs a way to utilize the facilities available at the farm to pursue their goals and ambitions. However, there is a lack of support from the government in providing loans and organic manure, food and crop security. Farmers needs to adopt innovative farming techniques in manure dripping system and minimize the environmental impact.
Vishaka Avati	02FE22BEE054	
Aditi	02FE22BCS006	
Sudeep	02fe22bcs156	
Vishaka	02FE22BEE054	

Narration

Manures are plant and animal wastes that are used as sources of plant nutrients. They release nutrients after their decomposition. The art of collecting and using wastes from animal, human and vegetable sources for improving crop productivity is as old as agriculture. Manures are the organic materials derived from animal, human and plant residues which contain plant nutrients in complex organic forms. Naturally occurring or synthetic chemicals containing plant nutrients are called fertilizers. Manures with low nutrient, content per unit quantity have longer residual effect besides improving soil physical properties compared to fertilizer with high nutrient content. Team meet the stake holder Primary-Yellubai KhannukarSecondary- Laxuman KhannukarTertiary-Girija manjunath This human-centered design process consists of five core stages Empathize, Define, Ideate, Prototype and Test.the 3 inetrview with stake holder give us the pain and gain points .and brainstroming and scamper tools are applied to finalise final idea .later the prototyping stage is to turn your ideas into something tangible which can be tested on real users. This is crucial in maintaining a user-centric approach, allowing you to gather feedback before you go ahead and develop the whole product.

Feedback about the Course

Conceptual Understanding: We may evaluate the course based on how well the instructors conveyed the principles and concepts behind social innovation and the manure drip system

Hands-on Experience: A crucial aspect of any course involving practical application is the hands-on experience provided. We might assess the extent to which we were able to engage with the design, construction, and operation of the manure drip system

Collaboration and Teamwork: Social innovation often requires collaborative effort. We could evaluate how well the course fostered teamwork and collaboration among participants.

Instructor Support and Guidance: The role of instructors is crucial in guiding and supporting students throughout the course. We might evaluate the accessibility and responsiveness of the instructors in providing guidance, feedback, and mentorship.

Overall Learning Experience: Finally, we could provide an overall assessment of our learning experience in the social innovation course.
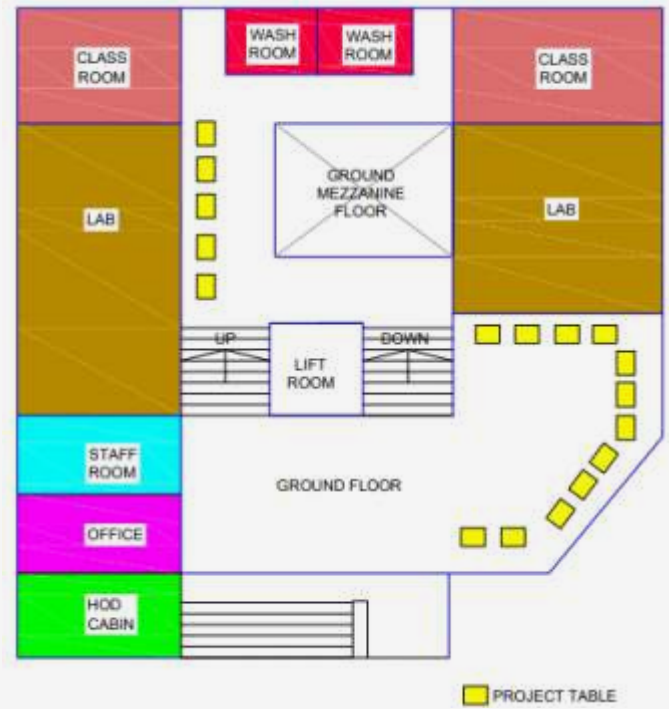
DESIGN THINKING FOR SOCIAL INNOVATION

KLE TECH

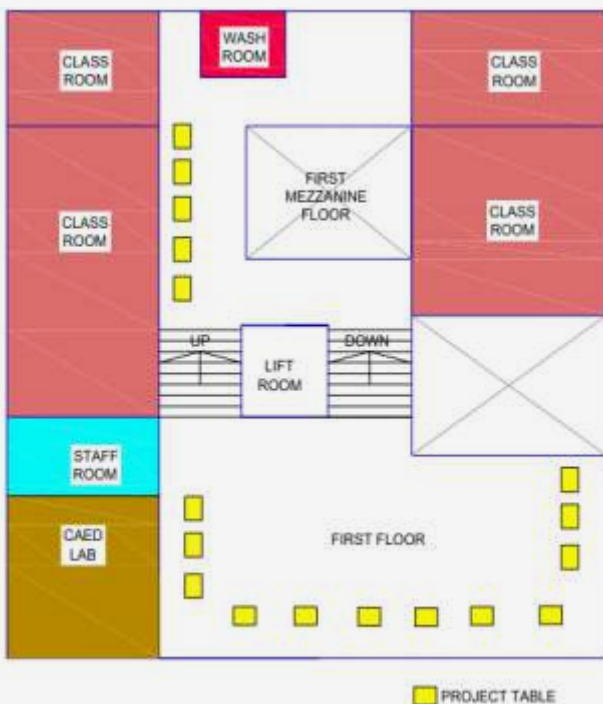Design Thinking for Social Innovation (DTSI)

AVINYA VARSH 2023

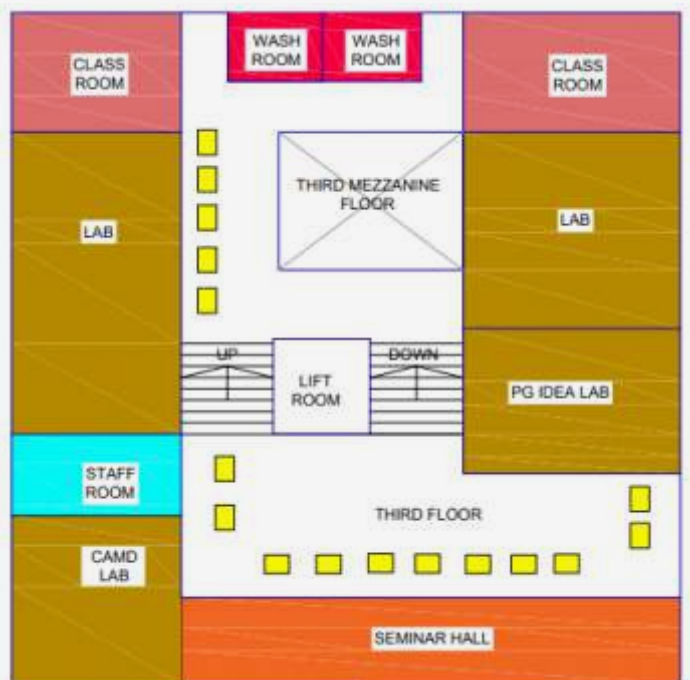**Venue:** Department of Mechanical Engineering

Exhibition Layout – Ground Floor

Exhibition Layout – First Floor

Exhibition Layout – Second Floor

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Dr. M. S. Sheshgiri College of Engineering and Technology

Belagavi, Karnataka | Ph: 0831-2440322