



KLE Technological
University
Creating Value
Leveraging Knowledge

Humanities &
Social Sciences

Social Innovation

A tour guide



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Social Innovation with Human Centered Design Approach



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To develop
Social Connectedness
in Engineering students

through

Social
Awareness

&

Social
Consciousness



Social Innovation

Social
Awareness

- To build students' capacity to use **problem solving skills** to address social issues through innovative solutions.
- To develop skills in **need identification, ideation, synthesis, and creativity**
- To transform students' mindset to reframe **Problems as Opportunities**

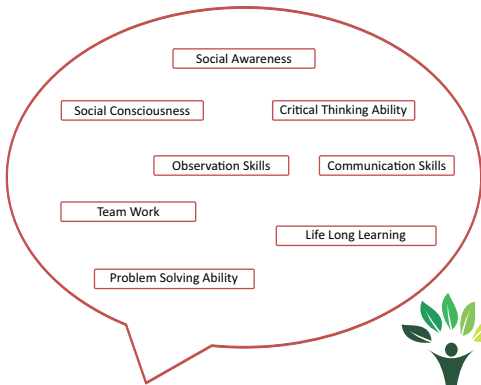
Social
Consciousness





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Social Innovation





Social Innovation



....transforming
young minds socially

Social Innovation

Course Highlights

Open Ended Course

2 Credit Course

All 1280 freshman
students

Taught by Engineering &
Humanities faculty

Class is of 35 students

80:20 assessment
pattern

More than 250 projects
in a year

More than 60 hrs of
community engagement

Students partnered in
designing the course

Rubric Based Assessment

Peer Reviews at defined
intervals

Human Centered Design
Approach

Student learning is through on-field Projects

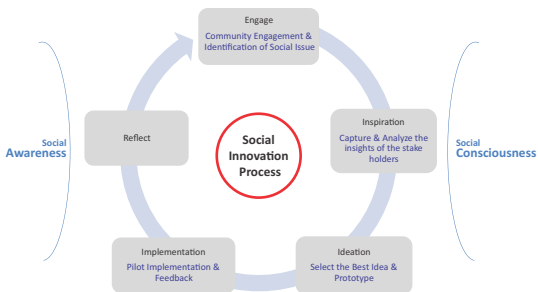


Philosophy behind Human Centered Design Approach

- Human Centered Design is a creative approach to problem solving.
- The process starts with people we are designing for and ends with new solutions that are tailor made to suit their needs.
- When we understand the people we are trying to reach and then design from their perspective, not only we arrive at unexpected answers, we will come up with ideas that they will embrace.

Social Innovation

Social Innovation





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Some Reflections



Designed innovative learning resources
for the students of Government schools



Taking students back to school



Helping street side
vendors on hygiene

Some Reflections



Developing Science Models
for school children



Visual Education System Providing
a better way to learn things...



To provide toys and learning tools to
disabled students of Manovikasa –
a school for special kids





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**Enhancing the
Learnability
of Blind
Students**



Opportunity for **Design**

How might we enhance
the process of learning
Braille language
efficiently and in
less time?

Multi-purpose
Braille Board

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Innovation**
With **HCD** approach





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**Technology
help for
old age
blind**



Opportunity for **Design**

How might we support
the old age blind people
walk with ease?

Can we bring in
technological
intervention?

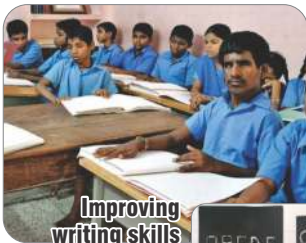
Wireless **cane**
to help blind people walk

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**Improving
writing skills
for Special
kids**



Opportunity for

Design

How might we improve
the writing skills of the
special students?

Tools
Designed for making
writing easy

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**Government
school teachers
are computer
illiterate.**

Opportunity for

Design

How might we provide
computer knowledge to
the teachers?



School teachers
trained on
computer basics

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**Say 'bye' to
tobacco
for better
health**



Opportunity for **Design**

How might we create
awareness on the ill
effects of Tobacco
addiction in rural
India?

**Education
through
Street Play...**

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With **HCD** approach





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**Increase
in dropouts
from Government
school leading
to Child Labor.**



Opportunities for **Design**

- How might we create interest in students regarding the importance of Education?
- How might we create awareness amongst the parents regarding the importance of education for their wards?

Students taken
back to school

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Women and Self-employment



Opportunity for

Design

How might we create an
awareness on skill
development for
women?

Skill-sets induced
by the Resource person
from RUDSET

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Scribers for Blind Students



Opportunity for

Design

How might we create a
platform to help blind
students get
scribers?

Website connecting **scribers**
with Blind students

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**Recreational
activities
in Primary
School.**



Opportunity for

Design

How might we create and
design recreational
activities for primary
school kids?

Learning sessions for teachers on
Innovative Teaching Tools and Models

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**Healthy pregnancy
and healthy delivery
of the babies.**



Opportunity for

Design

How might we
educate the women
on the new
government
schemes on
pregnancy?

Enrollment of pregnant women
for **new schemes.**

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**Soil Testing –
a backlog for
rural farmers**



Opportunity for

Design

How might we ready an
Arduino based device
which detects the
amount of nutrients
present in the soil?

Designed a **Arduino**
based device

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**Teaching
challenges for
Exceptional
children**



Opportunity for

Design

How might we design
models and tools for
blind students?

Designed

Teaching Tools & Models

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**How to detect
field's moisture
content?**



Opportunity for

Design

How might we detect
the moisture content in
the soil of the field
for the better yield?

Automated device designed
to **detect moisture content**

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**No Medical
history of
rural patients
for diagnosis**



Opportunity for

Design

How might we create an
app which gives the
complete record of the
patient?

A Smart phone Application is designed and
developed which serves as a health directory

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**Love &
Affection
for old age**



Opportunity for

Design

How might we make
people from old-age
home happy?

Orphans from Orphanage
visit Old-age home every Sunday

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**Unclean drinking
water leading
to various
health issues**



Opportunity for

Design

How might we provide
simple methods and
make the water
drinkable?

Tap mounted **Filters**

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**Conventional way
of cooking
in rural India
leading to
health hazards**



Opportunity for

Design

How might we reduce
the pollutants in the
smoke?

...Furnacious

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**Improper
management of
garbage bins.**



Opportunity for

Design

How might we bring the technological intervention in proper management of garbage bins?

Automated level Indicator kit
using sensors.

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**Eradicating foul smell
and stopping
mosquito breeding
over the cow dung
stack**



Opportunity for

Design

How might we eradicate
the foul smell and stop the
breeding of mosquito
over the cow dung
stack?

Learning through demonstration

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**Save a life
with first aid
support**



Opportunity for

Design

How might we create an
awareness amongst
people on first aid?

App giving information
on first-aid

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**Wear Helmets,
ride safely !**



Opportunity for

Design

How might we design a system which makes a rider wear a helmet whenever riding by default?

Bikes with
Automated Censor

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**Biological
waste
disposal**



Opportunity for

Design

How might we design a
disposal unit for multiple
functions?

Multi-functional
dustbin

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Opportunity for Design

How might we convince
authorities in adopting
stray-cattle?



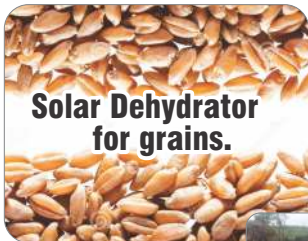
Stay for stray- cattle
in ISKCON gowshala.

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Solar Dehydrator for grains.

Opportunity for

Design

How might we help the farmers in dehydrating grains at a faster pace?



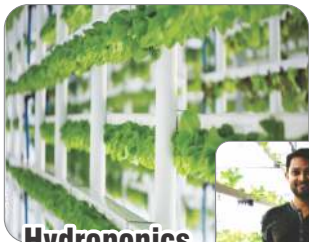
Solar dehydrator designed

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Hydroponics



Opportunity for

Design

How might we
demonstrate a
technique called
hydroponics?

Demonstration on **Hydroponics**

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"This course exposed us to the **pathetic** and **alarming** realities of the lives of the people. It prepared us to see **problems as opportunities**. It **sensitized us socially**".

Aishwarya



"This course gave us an **opportunity** to step into the shoes of the **sufferers**. It induced into us the **problem solving** skill which helped us to give a **feasible** and a **sustainable solution**".

Kunal

A Rebuttal on Social Innovation

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Ultimate Purpose:

“To Make the World a Better Place to Live in”



Engineers can paint,
An ideal society on the world canvas !!!

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Dr.Ashok Shettar
Vice-Chancellor
KLE Technological University

Dr. Sanjay Kotabagi
Head-Department of
Humanities & Social Sciences

The Crew

Sujata Kotabagi
School of Electronics &
Communication

Vilas Purohit
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Deepak Yeraguppi
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Biotechnology

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Prashant N.
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Mallikarjuna Akki
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& Student mentors

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