



7. 2 Best Practices

Best Practice 2:

XAVERIAN INNOVATIVE AND ENTREUPRENURIAL INITIATIVES

CRITERION 7

INSTITUTIONAL VALUES AND BEST PRACTICES

BEST PRACTICE 2

Title: Xaverian Innovative and Entrepreneurial Initiatives

Xaverian Innovative and Entrepreneurial Initiatives, a multidisciplinary venture unique to the College, has become synonymous with the idea of financial independence for women through its diverse innovative and entrepreneurial Initiatives. The activities organized under the aegis of innovation and incubation Centre encourage the students to devise creative ideation, to develop innovative products and to initiate, organize and run own business enterprises. In addition, the institution promotes various skill development initiatives that help women in and around the college to develop entrepreneurial skills that enable them to attain self-reliance. Activities that come under the practices are aimed to mould the women competent enough to live apace with the competitive world thereby helping transform themselves into successful and self-reliant women.

The Context

As the world is getting highly competitive in terms of career opportunities and employability, the college deemed it obliged to create an ecosystem facilitating innovative and entrepreneurial skills of the students. Creating a network of Teachers, Trainers, Alumni, students and society, a culture of ideation innovation and entrepreneurship has been established. Since 2000, the innovative and entrepreneurial endeavors were conducted by ED club. In 2019 Institution Innovation Cell (IIC) was established as the apex body which directs the enterprises of varied clubs and cells like Entrepreneurship Development Club, IEDC (Innovation and Entrepreneurship Development Cell), IPR (Intellectual Property Rights) Cell, National Innovation Startup Policy (NISP) diversifying the innovative and entrepreneurial initiatives to help students acquire employability skills and to transform women into successful entrepreneurs. The practice works in two levels.

1. **Product Workshops and Skills Training:** aims to equip women to identify, develop and fine tune skills sets that befit their aptitude.
2. **Samrambhaka Vedi:** aims to offer a direct physical platform for women entrepreneurs, experts and amateurs to transform their ideas into reality.

TABULAR REPRESENTATION OF THE RESOURCE STRENGTH (HUMAN CAPITAL AND PHYSICAL CAPITAL) OF THE IIC INSTITUTION

Sl.No	Resource	Number
1	Total Teaching Faculty	99
2	Total Students	1705
3	Student Innovation Ambassadors	4
4	Faculty Innovation Ambassadors	36
5	Pre-Incubation Units	4
6	Incubation Units	2
7	IP Cell	1

Awards and Recognitions won at State/ National/ International Award and Recognitions

Sl.No	Name	Issued by	Date	Level
1	Bhadra G Nair "Chitpo" (Third prize)	Samrambhaka Mithra-Idea Challenge for Innovative projects	22.07.2022	State
2	Megha Maria Lal Evelin Rose Denny Neha Shajahan Dr. Revathy.S "Biobrick" (Consolation Prize)			
3	Appreciation to College for submitting Maximum entries in Idea Challenge			

4	Megha Maria Lal	Chalao India- Avodha Edutech	2022-2023	National
5	Only Arts & Science College who received mentor-mentee scheme with funding of 2.25 lakhs	Ministry of Education, India	2022-2023	National
6	Patent published – * Fish Farm- Dr Revathy S *Eco-medi brick- Megha Maria Lal Dr Revathy S Dr Seema K Neha Shajahan *Chitpo- Bhadra G Nair Renjitha Reghunath	Published in the Patent Office Journal	2022-2023	National
6	Internship- Megha Maria Lal	Azim Premji University	01.07.2022- 31.06.2022	National
7	Recognition certificate- Megha Maria Lal Evelin Rose Denny Neha Shajahan	The University of Auckland India SDG Business Case Team Competition 2022	2022-2023	International

BREAK THROUGH INNOVATIONS/ TECHNOLOGY DEVELOPED AT THE INSTITUTE

1	Bio Brick, St Xavier's College for Women, Aluva, Megha Maria Lal, Evelin Rose Denny, Neha Shahjahan, Dr Revathy S and Dr Seema K
2	Chitpo, St Xavier's College for Women, Aluva, Bhadra G Nair and Ms Renjitha Reghunath
3	Extraction of oil from curry leaves berries, St Xavier's College for Women, Aluva, Khadeeja Shahjahan and Dr Nerwly Joseph
4	Magnetic Rack, St Xavier's College for Women, Aluva, Ann Veneesa and Ms Jonis VC
5	Talcum Powder from Aloe Vera gel, St Xavier's College for Women, Aluva, Dr Bilu Job and Dr Shereena John

Session on idea generation for Start ups

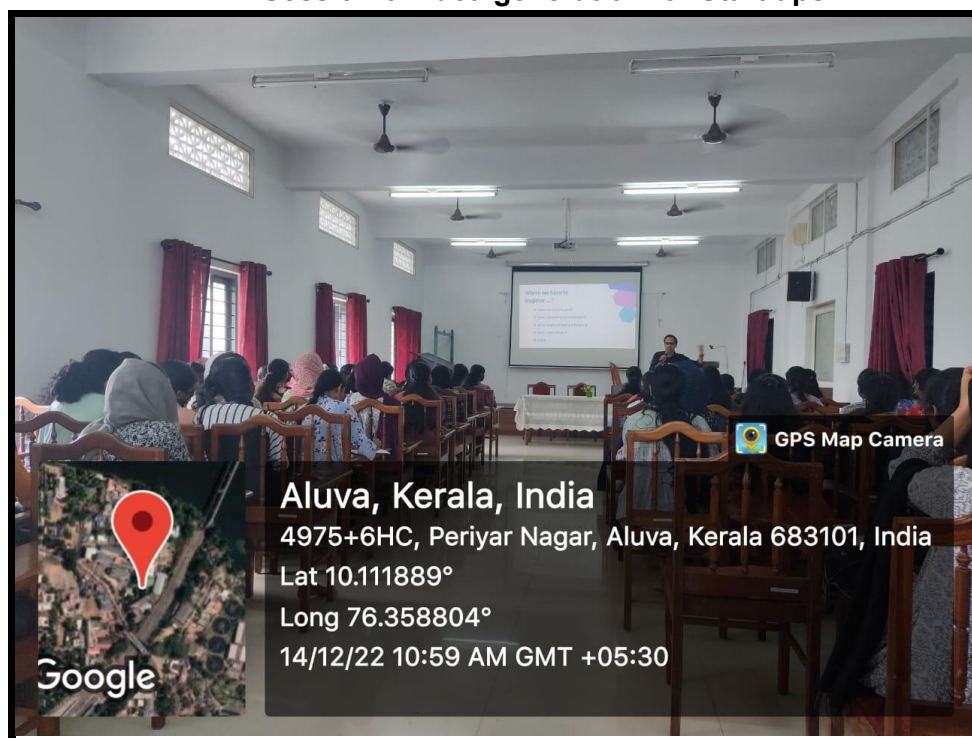


Figure 1 Session by Mr Nebu John, Founder of Sinrrobotics Pvt Ltd

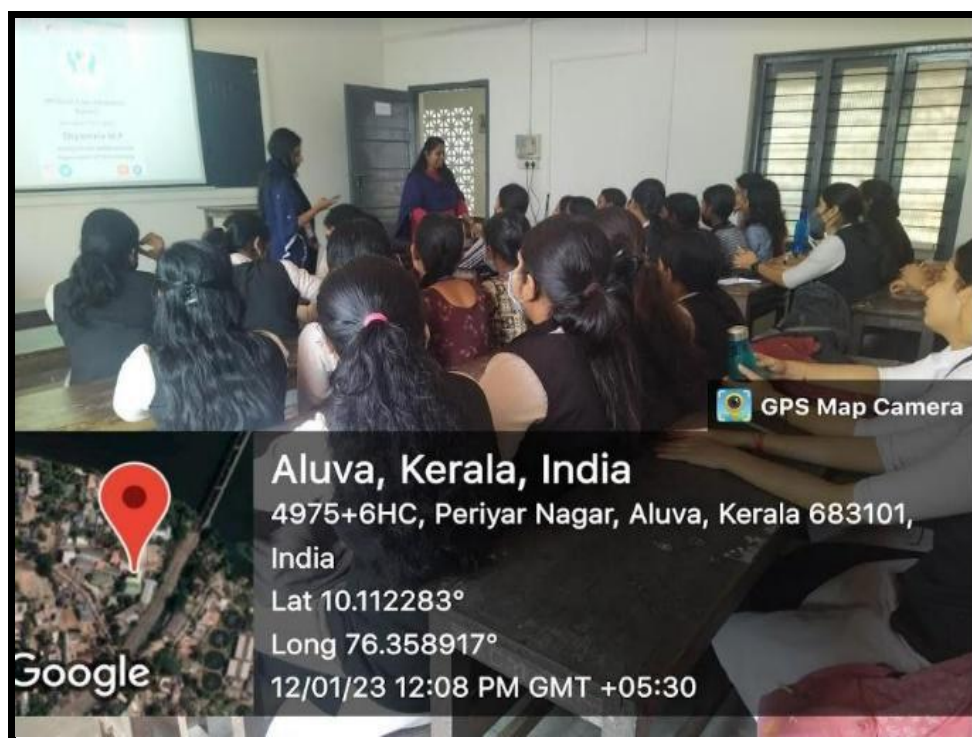


Figure 2 Training Programme on Intellectual Property Rights

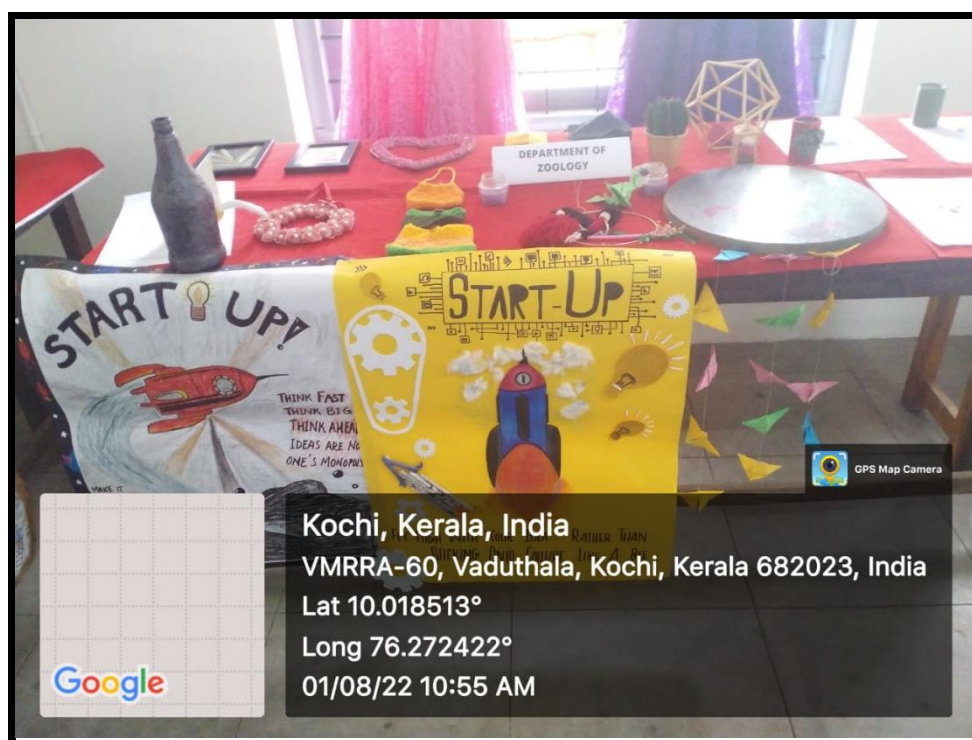


Figure 3 START UP IDEAS – DEMO DAY

ARTIST IN ME -Workshop conducted to develop the artistic skills of the kudumbasree members of UBA village of the college



Figure 4 WORKSHOP- ARTIST IN ME



Figure 5 WORKSHOP- ARTIST IN ME

HERE 2 CREATE - workshop on Graphic Designing

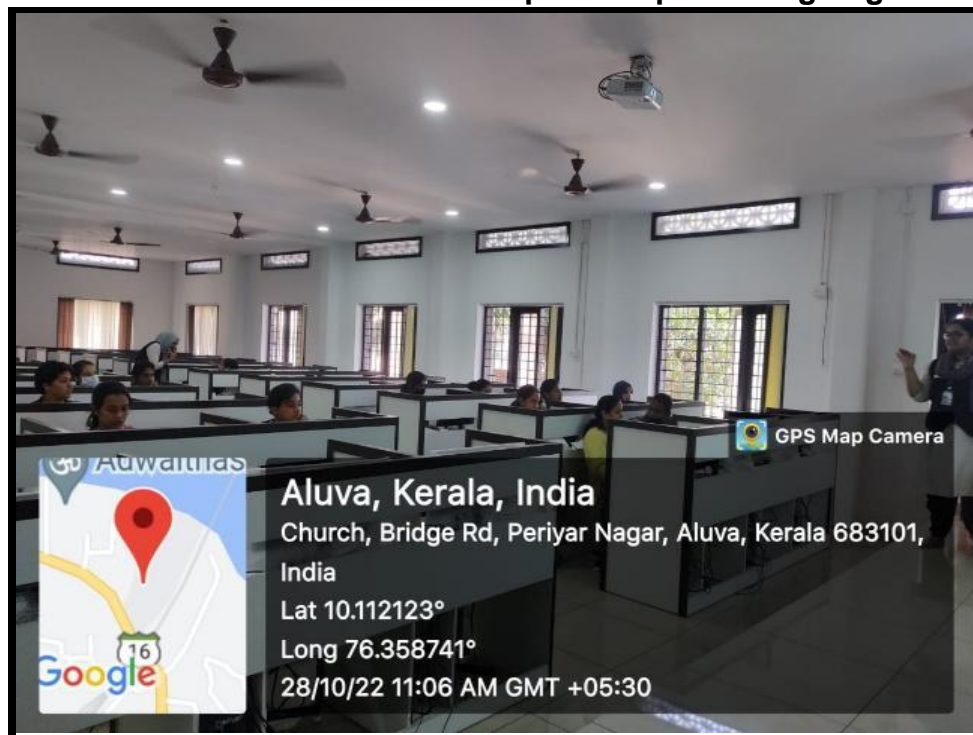


Figure 6 Workshop- HERE 2 CREATE

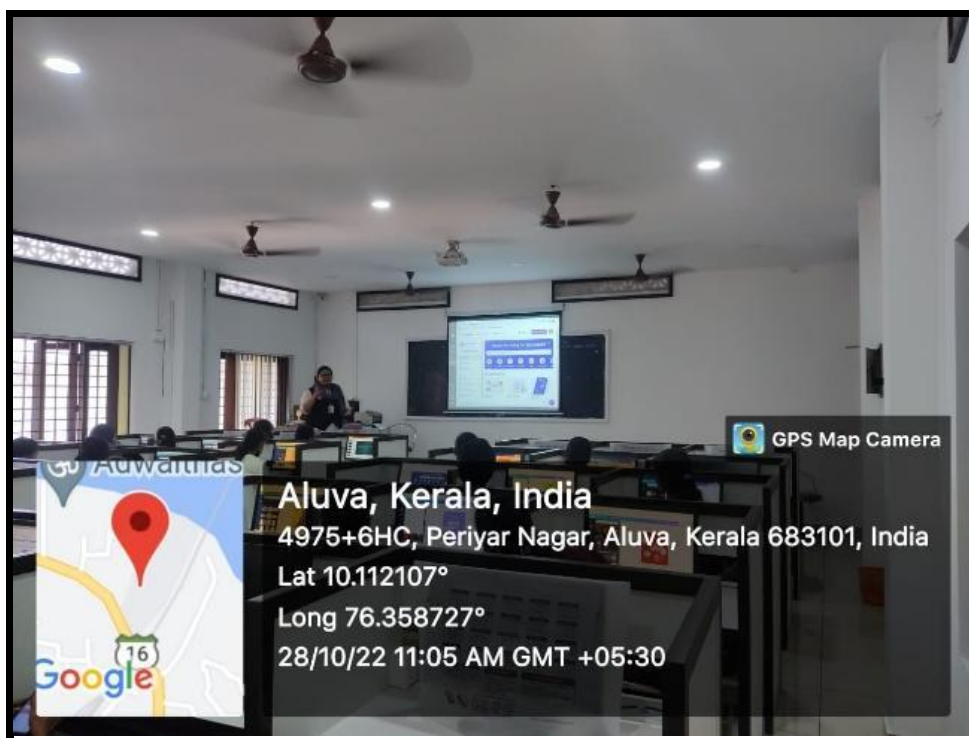


Figure 7 Workshop- HERE 2 CREATE

HACCP Training Program

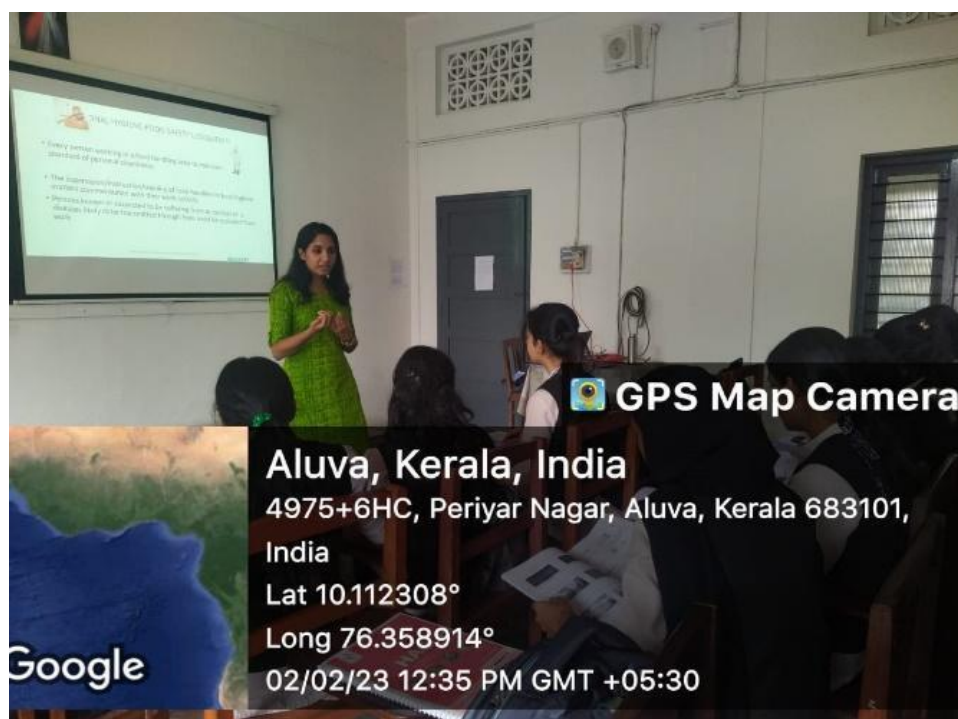
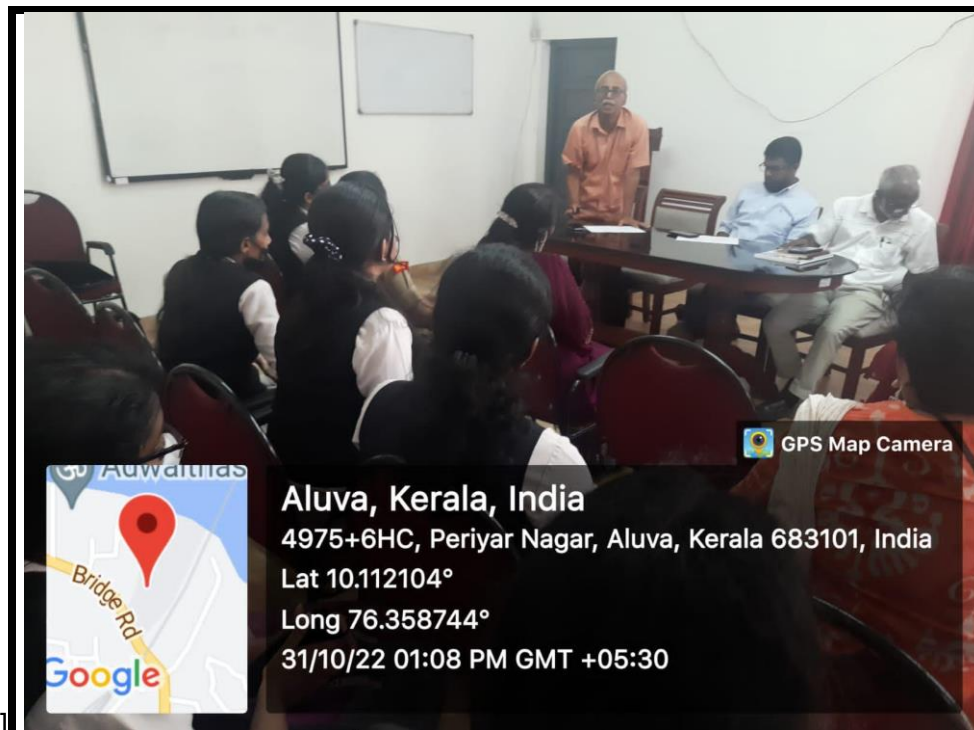


Figure 8 Session by MS Anjana B, HACCP trainer,

Intra-Institutional Idea Competition



Workshop on Business Model Canvas



Workshop on crafting seminar essentials

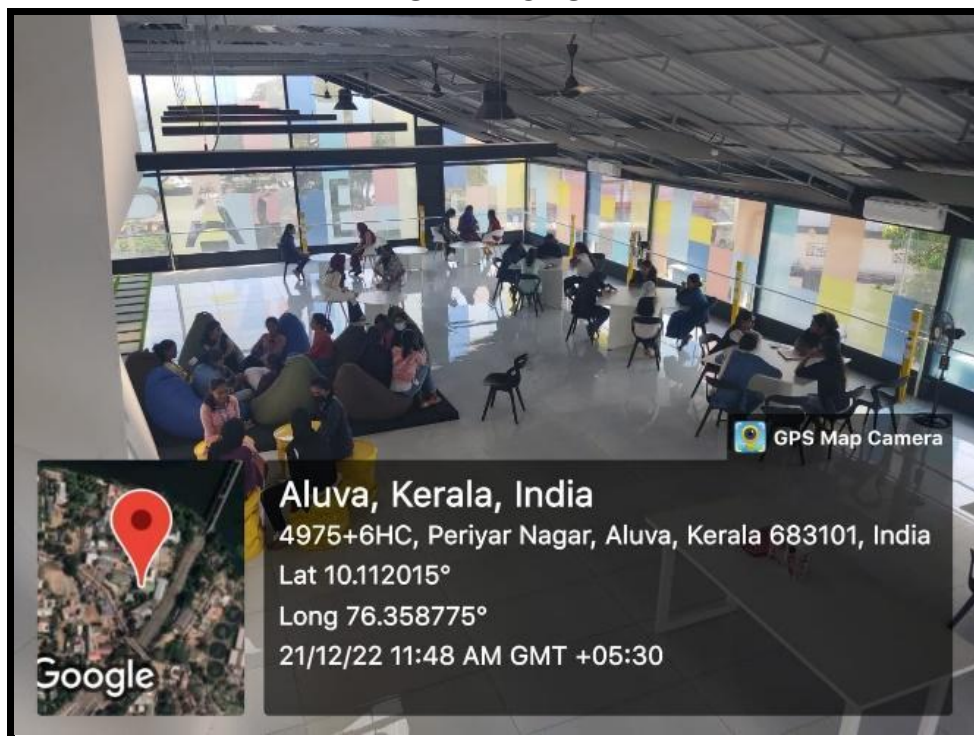


Figure 9 Students making paper files and note pad

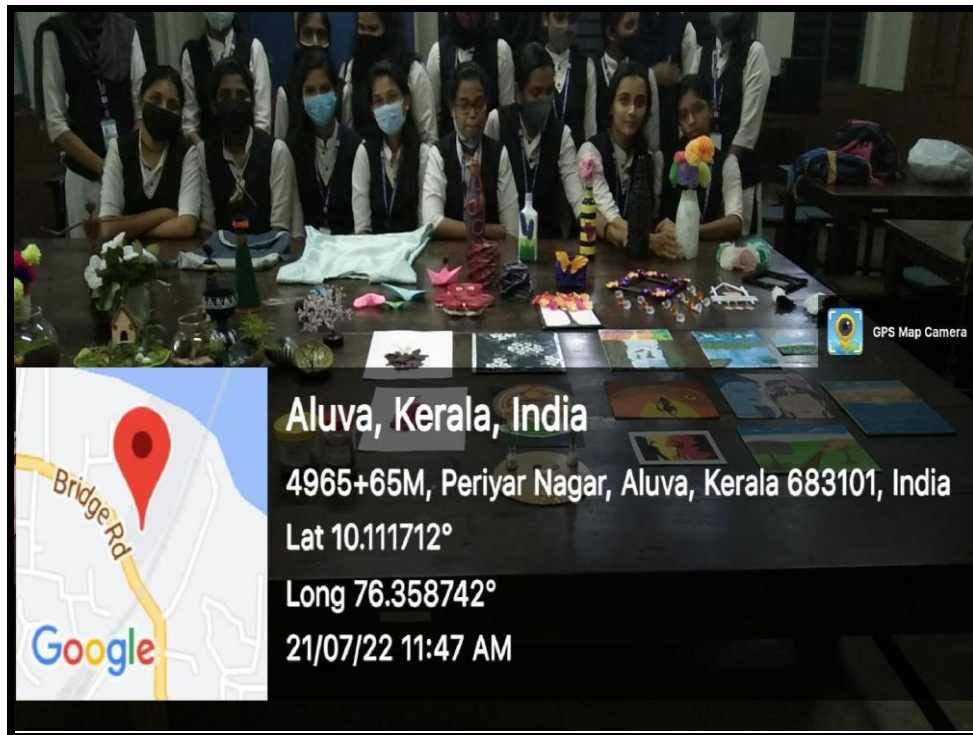
Workshop On Entrepreneurship Development



SHEHACKS



Exhibition of Entrepreneurial products



PATENT PUBLISHED

<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">(31) Priority Document No</td> <td style="width: 60%;">:NA</td> </tr> <tr> <td>(32) Priority Date</td> <td>:NA</td> </tr> <tr> <td>(33) Name of priority country</td> <td>:NA</td> </tr> <tr> <td>(86) International Application No</td> <td>:NA</td> </tr> <tr> <td>Filing Date</td> <td>:NA</td> </tr> <tr> <td>(87) International Publication No</td> <td>: NA</td> </tr> <tr> <td>(61) Patent of Addition to Application Number</td> <td>:NA</td> </tr> <tr> <td>Filing Date</td> <td>:NA</td> </tr> <tr> <td>(62) Divisional to Application Number</td> <td>:NA</td> </tr> <tr> <td>Filing Date</td> <td>:NA</td> </tr> </table>	(31) Priority Document No	:NA	(32) Priority Date	:NA	(33) Name of priority country	:NA	(86) International Application No	:NA	Filing Date	:NA	(87) International Publication No	: NA	(61) Patent of Addition to Application Number	:NA	Filing Date	:NA	(62) Divisional to Application Number	:NA	Filing Date	:NA	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%; border-right: 1px solid black; padding-right: 5px;"> G01K0001020000 </td> <td style="width: 60%; padding-left: 5px;"> (72)Name of Inventor : 1)Sangeeth CP 2)Dr. Revathy S 3)Vedanth Nikhil 4)Jojo Paul 5)Nandita Sangeeth 6)Nandana Sangeeth </td> </tr> </table>	G01K0001020000	(72)Name of Inventor : 1)Sangeeth CP 2)Dr. Revathy S 3)Vedanth Nikhil 4)Jojo Paul 5)Nandita Sangeeth 6)Nandana Sangeeth
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G01K0001020000	(72)Name of Inventor : 1)Sangeeth CP 2)Dr. Revathy S 3)Vedanth Nikhil 4)Jojo Paul 5)Nandita Sangeeth 6)Nandana Sangeeth																						
<p>(57) Abstract :</p> <p>An IoT-based monitoring system (10) includes an ammonia sensor (14) having a filter (56) configured to split reflected light (64) from a chemical ammonia strip (54) into red light (66), blue light (68), green light (70), and clear light (72) which are then converted by photodiodes (58) to a first current signal (74), a second current signal (76), a third current signal (78), and a fourth current signal (80) respectively. A converter (60) is configured to convert first current signal (74), second current signal (76), third current signal (78), and fourth current signal (80) to first frequency signal (82), second frequency signal (84), third frequency signal (86), and fourth frequency signal (88) respectively. A first processor-based microcontroller (36) is configured to determine an amount of ammonia in the water of the fish farm based on the frequency signals (82, 84, 86, 88) and a predetermined calibration parameter.</p> <p style="margin-top: 20px;">No. of Pages : 34 No. of Claims : 16</p>																							
The Patent Office Journal No. 39/2022 Dated 30/09/2022																							
62963																							

(51) International classification :G06Q0030020000, C04B0033132000, A61K0036889000, C04B0033320000, A01N0065260000
 (86) International Application No :PCT//
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Name of Applicant : NA
Address of Applicant : NA
(72)Name of Inventor :
1)Megha Maria Lal
 Address of Applicant :Megha Maria Lal Velammarukudiyil (H) Piravom. P. O. Piravom Ernakulam (Dist), Kerala, India Piravam -----
 --
2)Dr. Revathy S
 Address of Applicant :Assistant Professor in Zoology St. Xavier's College for Women, Aluva 9447726348 Mail id:- -----
3)Dr. Seema K
 Address of Applicant :Assistant Professor in Zoology St. Xavier's College for Women, Aluva 9846222959 Mail id:- -----
4)Evelin Rose Denny
 Address of Applicant :Thadathil house Oonnukal P. O Oonnukal house Ernakulam (Dist), 686693,Kerala, India 9446486213 Mail id:- evelinrosethadathil@gmail.com -----
5)Neha shajahan
 Address of Applicant :PLRA-14, Puthukkalavattom Elamakkara (682026), Ernakulam (Dist), Kerala, India 7736481528 Mail id :- nehashajahan86@gmail.com -----

(57) Abstract :

Eco-Medi Bricks are basically the bricks which are made from cow dung which is applicable in order to overcome the challenges faced during the usage of traditional fired clay bricks. Cow dung is undigested residue of plant matter which is passed out through the gut of cow. It is rich in several minerals and organic matter thus this cow dung is really beneficial and ecofriendly. As we all know traditional fired clay bricks produce lots of pollution while it's production, as it is dried under furnaces. At the same time it is of high cost and not provide with a suitable living condition because it absorbs heat during day and releases on night in summer and vice versa in winter. All these consequences can be overcome using our new product Eco-Medi Bricks. Now it is in its prototype stage. Novelty:- This invention is completely new as the combination of mixture that we are using is of something new. Because in this we are using cow dung, lime, fibres (areca husk fibre, cocopeat) and mud to increase strength and dried powder of Indian borage , neem leaves, & curry leaves are used to avoid fly attack. At the same time content of cement is added to increase its strength and clay coating is provided to prevent easy catching of fire. Instead of furnace for drying natural source of light ie, sunlight is used. Applications:-used for making temporary structure (cycle stand) , insulation (cover your roof for reducing your AC electric bills) etc, it can be used instead of tiles (unpolished surface as earlier times), used for internal partition of buildings, ceiling purposes, used as fillings of pillars of multipurpose buildings, wall decorations etc. Marketing strategy:-This concept of eco-medi bricks will be greatly attractive and approachable to customers or users because of all it's advantages that we discussed earlier. Since this process of brick making is simple, training can be imparted to individuals and this can indeed generate self employment opportunities especially in case of women also. Major attraction of these bricks over fired clay bricks is that low cost and provide positive energy, reduces pollution etc. Thus this concept will be highly attractive.

No. of Pages : 16 No. of Claims : 5

Publication No

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Application Number :NA
Filing Date :NA

1)BHADRA G NAIR

Address of Applicant :B8, ATHULYA APARTMENTS,
MANIMALA ROAD NORTH END, PONEKKARA, AIMS PO,
KOCHI-682041 KOCHI -----

2)RENJITHA REGHUNATH

Address of Applicant :ST. XAVIER'S COLLEGE FOR WOMEN,
ALUVA ALUVA -----

(57) Abstract :

Maths is a subject that has confused students all around the world. Polygons and its properties are one among the many topics in mathematics that is tricky and confusing at the same time. CHITPO is a game that aims to make the mathematical properties related to quadrilaterals and triangles easy to remember. Quadrilaterals are four-sided polygons and triangles are three-sided polygons. The movements and rules of the game are based on mathematical properties. The game ends when one of the players eliminates all the shapes of the other player. CHITPO's board is similar to the chess board and the number of coins is also same, but the game is entirely different. Chess is traditionally made in black and white but the pieces of CHITPO comes in different combination of colours and the board will have a different colour. The game particularly aims to make education fun. It targets students of class 5 to 10. When the game is played continuously the students will byheart the movements and rules and by doing so they will become familiar with the otherwise confusing properties of polygons.

No. of Pages : 11 No. of Claims : 4

Idea Challenge Grand Finale 2022



Figure 10 Third Prize Rs 5000/e: Chitpo: Bhadra G Nair



Figure 11 Consolation 3000: Bio Brick: Megha Maraial Lal, Evelin Rose Denny, Neha Shajahan & Dr. Revathy.S



Figure 12 Appreciation to College for submitting Maximum entries in Idea Challenge

WINNER OF CHALO INDIA



Figure 13 Megha Maria Lal

ACCEPTENCE OF INTERNSHIP



Thara Balagopal
Manager People Function

June 27, 2022

Ms. Megha Maria Lal
Velammarukudyil (H)
P. O. Piravom
Ernakulam district
Kerala-686664

Dear Megha,

Welcome to Azim Premji University!

We thank you for your interest in doing your internship with **Azim Premji University**. Based on your interview, we are pleased to offer you an internship with the Research Centre at the University. During your internship, you will be guided by the following:

1. Duration

The **internship** will commence from **July 01, 2022** and will end on **July 31, 2022**.

2. Honorarium

You will be paid an all-inclusive honorarium of **Rs. 10,000** per month. The honorarium will be subject to deduction of taxes at source as per applicable law. Expenses towards local travel, lodging and boarding would be borne by you.

3. Confidentiality

During the tenure of your internship and thereafter, you shall maintain complete confidentiality and shall not divulge / disclose any confidential information coming to your knowledge or possession during or arising out of your association with the Foundation.

4. Upon Completion of Internship

Upon completion of the internship, you will immediately return to the University all assets, correspondence, specifications, books, documents, literature, drawings, effects or records etc. belonging to the Foundation or relating to its functioning and shall not make or retain any copies of these items. The certificate of internship completion and the approval on your project report will be subject to compliance with the content of this clause.

We once again thank you for your decision to do your internship with the University.

With best wishes,

Yours sincerely,

Thara Balagopal

Azim Premji University, Survey No. 66, Bonagante Village, Bikkanaiah Main Road, Sarapora, Bangalore - 562125

Azim Premji Foundation for Development, Registered Office: #134 Doddakannubi, Next to Wipro Corporate Office, Sarapora Road, Bangalore 560 035, India

Phone: 91 80 66144900/01/02, CIN: U80301KA2009NP051792, Website: www.azimpremjiversity.edu.in

Please sign and return the duplicate copy of this internship, as a token of your acceptance of the appointment, and of the terms and conditions specified above.

I accept the internship on the terms and conditions specified in this internship letter.

Name : Megha Maria Lal

Signature:

Place : Piravom, 686664, ERNAKULAM (Dist), KERALA

Awards and Recognitions



Figure 14 4-star level for the 3rd consecutive year

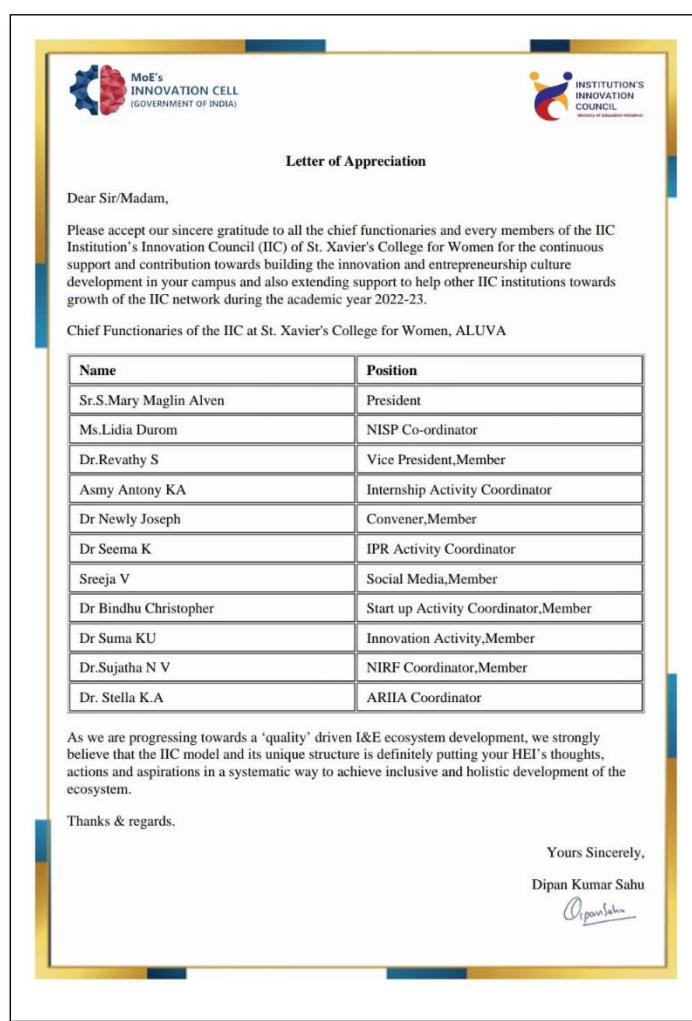


Figure 15 Auckland participation certificate



In recognition of your participation
in

**The University of Auckland
India SDG Business Case Team
Competition 2022**

awarded to

**Team Eco Innovations
Megha Maria Lal
Evelin Rose Denny
Neha Shaiahan**

Mentors: Dr. Revathy.S & Dr. Seema K

**St Xavier's College for Women
Affiliated to Mahatma Gandhi University**

A handwritten signature in blue ink, appearing to read "Ainslie Moore".

Ainslie Moore

Director, International
International Office

15 August 2022

Figure 16 Participation certificate