IQAC-Botany Annual Report-2020-21 KAHM Unity Women's College, Manjeri

Annual Report Core Department Department of Botany

I. Curricular Aspects:

1. Certificate Course - Modern Agricultural Technologies

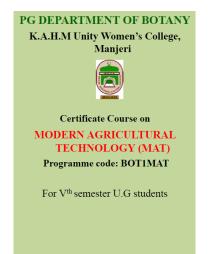
Department of Botany conducting a certificate course on Modern Agricultural Technology (MAT) for fifth semester U.G students of the college, to familiarize with modern and conventional practices adopted in agriculture, and to develop a farming culture among them. Classes with 30-hour duration will be completely on online mode. Class will start from 1 st August 2020 and ends by November 2020. Certificate will be issued to the students who successfully completed the course including an exam conducted by the department. Students who are interested to join the course, contact with the coordinator at the department.

Organizing committee

Co-ordinator: Dr. Faseela.P, Mob; 9048226588

Teaching Staff

Dr. Usman.A Mrs. Shahana Jasmi Dr. Soorya.V Mrs. Shahana Jasmin Mrs. Husna Banu Mrs. Hana Backar Mr. Ashfaq Ahamed O. Mrs. Riya Johnson



CERTIFICATE COURSE –LIST OF STUDENTS COMPLETED CERTIFICATE COURSE NAME: BOTIMAT MODERN AGRICULTURAL TECHNOLOGY (MAT) 2020-21

Course Coordinator: Dr. Faseela P.

Students list

Sl. No.	Admn No.	Roll No.	Name	Programme	Semester
1	2096	7159	Afeefa Nargees T.	BSc. Botany	V th Semester
2	2097	7121	Muhsina K.	BSc. Botany	V th Semester
3	2098	7045	Muhsina Thesni	BSc. Botany	V th Semester
4	2100	7197	Nafla K.	BSc. Botany	V th Semester
5	2117	7005	Shabeeha T	BSc. Botany	V th Semester
6	2118	7262	Shahana Sherin C	BSc. Botany	V th Semester
7	2119	7265	Neethu TM	BSc. Botany	V th Semester
8	2120	6944	Akhila Krishna P	BSc. Botany	V th Semester
9	2121	7060	Ayisha Afra PM	BSc. Botany	V th Semester

Syllabus of Programme

KAHM UNITY WOMEN'S COLLEGE, MANJERI DEPARTMENT OF BOTANY

Certificate course on Modern Agricultural Technology (MAT) (Programme Code: BOT1MAT)

Duration of course: 3 Months Total hours: 30 Hours

SYLLABUS

A) THEORY

A) Basics of Horticulture

- 1. Concept and scope of Horticulture
 - 2. Basic requirements Soil & soil components, soil testing, implements and irrigation methods

B) Garden and Nursery management

3. Types of garden (a brief account) - Rock garden, Roof garden, Bonsai, Kitchen garden, Orchard, Garden ponds

- 4. Sexual Propagation
 - i) Seed propagation, seed storage, seed dormancy, seed germination
 - ii) Seed treatment and seed viability test.
- 5. Artificial vegetative propagation
 - i) Cutting Stem, root and leaf cuttings.
 - ii) Layering Simple and Air layering
 - iii) Grafting Whip/tongue grafting, Approach grafting, Cleft grafting, Epicotyl grafting.
 - iv) Budding T-budding, Patch budding

C) Protection and management of gardens

6. Chemical and organic pesticides

D) Basics of micro propagation

- 7. Basic aspect of Plant tissue culture: History, sterilization, different media c.omponents, growth regulators and growth retardants
 - 8. Methods of plant multiplication: *In vitro*-basic parameters for propagation, Explant, Nutrient Medium, Culture environment, Inoculation, Induction of callus,

Organogenesis from callus - Importance of micro propagation

E) Mushroom Cultivation training

9. Spawn preparation, mushroom budding, sterilization of substratum, mushroom harvesting and nutrition contents

B) PRACTICALS

- Determination of soil P^H and soil texture.
- Measurement of weather parameters: Rain, temperature and humidity
- Visit to aesthetic / horticultural gardens / institutions
- Students should be familiarized with different types of budding, grafting and layering
- Setting up of drip irrigation in gardens
- Field visit
- Preparation of organic pesticides and fungicides for field application

- Preparation of stock solution of different media
- Preparation of solid and liquid media
- Sterilization techniques of glass wares, metal instruments, media and explants
- Student should be familiarize with selection of explants, sterilization and inoculation
- Demonstration of inoculation
- Mushroom cultivation

REFERENCES

- 1. Horticulture Principles and practices: George Acquaah, Prentice-Hall India, 2002.
- 2. Hand book of Horticulture: ICAR' ICAR New Delhi, 2002
- 3. Applied Plant Biotechnolgy: S lgnasimuthu, Tata Magrow Hill Publishers New Delhi, 1996.
- 4. Biotechnology: Trehan Keshav, Wiley Earten Ltd
- 5. A text book of Biotechnology: Dubey R.C, S.Chand and Company, 1995.
- 6. Plant Propagation : Sadhu M. K., New age international publishers, New Delhi, 1996.
- 7. Fundamentals of Horticulture: J.B. Edmond et al., Tala-Mac-Grow Hill Publishing, New Delhi, 1977.
- 8. Ornamental Horticultre: Vishnu Swamp, Macmillan India Ltd, 1997.
- 9. Text book of Horticulture : K. Manibhushan Rao, Macmillan India Limited, 1991.
- 10. Plant tissue culture : M.K.Razdan, Oxford publishing, New Delhi, 2003.
- 11. Plant cell Tissue and organ culture : O. L. Gamborg & G. C. Philips, Narosa Publishing house, New Delhi, 1996.
- 12. Floriculture in India G.S Randhava: Allied publishers limited, New Delhi, 1986.
- 13. Floriculture in India: A Mukhopadhyay, Floriculture in India, Allied publishers limited, New Delhi, 1986.
- 14. Plant cell, Tissue and Organ culture : J. Reinert and YPS Bajaj, Narosa Publishing House, New Delhi, 1997.
- 15. Vegetative propagation of plants: K. K. Nandha and V. K. Kochar, Kallyani Publisher, New Delhi, 1996.

T	INUT	ES OF BOR	RD OF STUDIES MEE	ETING
RE	MINUTES OF BOARD OF STUDIES MEETING REGARDING CERTIFICATE COURSE ON 374 JULY 2020			
	AT	10. A.M ON	GOOGLE MEET PLATFO	DRM
	-			
1-	The b	card of stu	dies meeting was he	ld on 3rd
In	ly 20	20 at 10.A.	n on google must pla	tform.
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Pre	Sidea	E previous ue	ting. The result of the	ne centificate
-er	the n	pecting .	- garnes a	in the agenda
T		0	and a fear complete by	US IN
- 2			Board of Studies o.	
	cour	sc. for the a	icademic year 2020 -:	2021
	The	members a	ne :-	
		1		2 44 4 4 4
	SI N	a Name	Designation & Address	
-	-			Emal. 1D.
	1.	Dr. Usman.A	Asst. Professor, Dept. of	9446973230
	1.	0. 92	Botony, K.A.H.M Unity	usmaan averath @
			Women's College.	gnail. con.
			Manjeri	
	2.	Dr. Faseelap	Asst. Professor in contract	9048 226588
			Dept. of Botany	Faseela 8888 Ogmil
			KAHM Unity Women's College	Com.
-			Manjeri	7510 891070
	.3	Dr. Soorya.V	Assit. Professor in contract	
-			Dept of Botany.	Sobry Scorye. 18 @
			K.A. H.M. Unity Women's College, Manjori	Sobry Scorye. VB @ gmail. com.

 => Board selected Dr. Rajesh Kumar. T.
 Assistant Professor, Department of Plan Science, NSS College, Manjeri as Subje
 expert.
 > The syllabus need not be changed
 » Decided to continue as por the syllabus constituted in the previous years.
=> Classes will be completely on online mode.
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CARD- ALENCE

- · Students Enrolment List
- · Attendance Register
- · Assessment Procedure
- · Summary Reports
- · Brochure
- · Certificate
- · Sanction Order

2. Faculty participation & positions in various bodies for curriculum development and assessment / evaluation (in Department/ College/ University)

Nil

3. Details of faculty members and students who have completed online certificate courses from various platforms (courses offered by dept or other national or international bodies excluding the certificate courses run by dept.)

Nil

4. No of students undertook project/ field work/ internships/ field project/ in the academic year (add certificate page of the project, list must be maintained in dept by tutor with topic of the project and supervisor) MOU for project/internship/ field work must be produced

37 UG Botany and 11 PG Botany Students

4. Class PTA- details (Photo, attendance, Minutes.)

Nil

5. Bridge courses (Photo, report)

Nil

6. Flipped learning/ online / hybrid learning Details of usage of online teaching platforms for teaching, learning and evaluation, link of GCR, YOU tube links of the department and faculty members and total number of class wise e- communication by each faculty

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7. Gender, environment, professional ethics, human values inculcation, sustainability related activities conducted or initiatives / number and names of courses in your syllabus with these components.

- Activities inaugurated by Dr. Musthafaanand P.H.; PSMO College, Thirurangadi He delivered a talk on'Plants as Immunity Boosters' on 6th July 2020
- Department conducted a webinar series in the name "PHYTOS" and was inaugurated by Dr. Rajesh Kumar. T, NSS College, Manjeri on 8th August 2020. There was an interactive session on "Plant Taxonomy, Classification and Identification of Angiosperm families" for UG and PG students.
- Mr.Sabin P Q, Research scholar, presented a webinar on Career Options In Life Sciences for UG and PG students on 15th January 2021 (PHYTOS)
- On 27th January 2021, Dr C.R Elsy, professor and Coordinator, IPR cell, Kerala Agricultural University, interacted with the UG and PG students at the topic, "Basic Principles of intellectual Property Rights" (PHYTOS)
- Conducted online interactive sessions on lower plant groups, resource persons and topics are;

- o Dr. Ajayan. K. V Algal Diversity and its Industrial Uses on 23rd February 2021
- Dr. Manjula.K.M Diversity and Importance of bryophytes on 27th February 2021
- o Vijisha.P-Pteridophytes, An introduction on 30th march 2021

II. Teaching, Learning and Evaluation:

1. No of students admitted in the year and category (OBC, SC, ST etc.)

BSc - Botany : 35 students, OBC - 26, SC - 4, General - 5 MSc - Botany : 27 students (9 Aided, 18 self), OBC - 22, SC - 2, General - 3

2. Tutorial system – List of Tutors of the academic year

Sl. No.	Name of Faculty	Class
1	Dr. Usman A	MSc Botany Aided Second year
2	Dr. Faseela P	MSc Botany Aided First year
3	Dr. Soorya V	BSc Botany Third year
4	Mrs. Shahana Jasmi A	BSc Botany Second year
5	Ms. Riya Johnson	BSc Botany First Year
6	Ms. Hana Backer	MSc Botany Self First year
7	Ashfak Ahammed O	MSc Botany Self Second year

3. Details of ICT tools and innovative practices used and usage by each faculty of the department for teaching, learning and evaluation and details of Faculty wise use of Digital studio/ EDC for content creation including the contents list.

Sl. No.	Particulars	Count
1	Computers (Desktops and laptops)	4
2	Active / smart board	0
3	Projector	3

4	Language lab 0	
5	Internet lab	0
6	Movie CD	1

4. Invited lectures/ Meet industrial expert / Meet academic expert / On site classes conducted for students etc.

4.1. An online meeting of the staff and students of the Botany association in the platform of Google meet was held on June 18th 2020 and Ms. Shibili P.K., III Sem. B Sc Botany was selected as the Association Secretary- incharge and Dr. Faseela P, as the Association Teacher -in -charge. Dr. Usman A., HOD, Department of Botany put forward the programme schedule of Botany Association in 2020-21 academic year. We decided to conduct the Association inauguration on 6th July 2020 and also a webinar series in the name of _PHYTOS on various aspects of Botany.

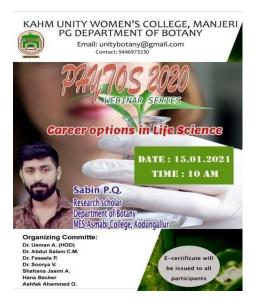
4.2. Botany Association was inaugurated in online mode on 6th July 2020 by Dr. Musthafaanand P.H., HOD, Department of Botany, PSMO College, Thirurangadi. He delivered a talk on _Plants as Immunity Boosters to discuss on medicinal properties of plants to overcome the pandemic situation of Covid-19 and around 65 students participated in the programme.



4.3. A virtual session on Plant Taxonomy, Classification and Identification of Angiosperm families for UG and PG students was conducted under the webinar series - PHYTOS on 8th August 2020 at 10 AM. The session was handled by Dr. Rajesh Kumar T., Assistant Professor, NSS College, Manjeri and around 99 students participated in the programme.



4.4. The Association organized an online talk on Career Options in Life Science under the webinar series PHYTOS on 15th January 2021 for PG and UG students. Mr. Sabin P Q, Research scholar, Department of Botany, MES Asmabi College, Thrissur dives into career opportunities of life science and various competitive exams also. He is an effective communicator with a passion in motivating and guiding the students to choose their right career path for a life time success. The webinar was conducted through the Google meet and around 256 students attended the programme.



4.5. On 27th January 2021, Dr C.R Elsy, professor and Coordinator, IPR cell, Kerala Agricultural University, interacted with the UG and PG students and delivered a virtual session on Basic Principles of intellectual Property Rights. Over 140 students attended the talk through the online mode and there was an interactive session at the end of the webinar. Participants were asked questions and they remarked on intellectual properties like industrial design, geographical indication, trade secret, protection of farmers rights and researcher's rights etc.



4.6. The Botany Association decided to conduct online interactive sessions on lower plant groups; algae, bryophytes and pteridophytes. Dr. Ajayan. K.V., POST Doc Fellow, Algal biomass laboratory, Environmental Science Division, Department of Botany, University of Calicut delivered a talk on Algal Diversity and its Industrial Uses on 23rd February 2021 at 11 AM on Google meet. About 121 students participated in the webinar and participants learned more about algal products and algae research.

An interactive virtual session on Diversity and Importance of bryophytes was delivered by Dr. Manjula K.M., Guest Faculty, Department of Botany, Mar Thoma College, Chugathara on 27th February 2021 at 10 AM. She discussed the bryophyte habitats and their environmental conditions and also to recognize groups of common bryophytes in their natural environments. Over 107 students participated in the session.



4.7. A talk on Pteridophytes - An introduction was conducted on 29th march 2021 in Google meet to explore the world of Pteridophytes. The session was handled by Vijisha, P, Research scholar, The Zamorin's Guruvayurappan College, Calicut and over 94 students participated in the programme.

5. OJT, Vocational Training conducted by the dept / in collaboration with agencies

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5.3. The Botany Association conducted a workshop on Mushroom cultivation in collaboration with Manjeri Municipality at PG Department of Botany on 20th March 2021. The workshop was well-attended by the students, teachers in the field of botany and Kudumbashree unit of Ward 47, Manjeri Municipality. About 72 participants were present. The workshop started at 10a.m. and the welcome speech was delivered by Dr Usman A (HOD PG Department of Botany). Dr. C. Saidalavi (Principal, KAHM Unity Women's college) gave the presidential address. The presentation and demonstration was done by chief guest Mr. Biju, Mullampara, Manjeri.



6. Student centric methods/ Participative learning/ problem solving / experiential learning methodologies used by the faculty members (method, photo of the same)

6.1. The research station visit made to KFRI, Thrissur Kerala by BSc students of PG Department of Botany on 03.03.2021 had the main aim as familiarize the various research techniques in the field of forestry. The institute carries out research, training and extension on a range of disciplines related to tropical forests and forestry. The main objective of research institute visit is to provide students an insight of the practical applications of what they are learning in theory because; theoretical knowledge is not

enough for making a good professional career. With an aim to go beyond academics, research station visit provides student a practical perspective on the world of work. It provides students with an opportunity to learn practically through interaction and working methods.



7. Remedial Teaching measures adopted by the dept. (photo, report, attendance)

Group discussions, questionnaire, unit tests

8. Assessment and evaluation – strategy and reforms, innovative evaluation methods, if any

Unit tests, Practical examinations

9. Programs for slow learners and advanced learners adopted in your department

Slow learners: Group study, Unit tests, Group discussions

Advanced learners: Group discussions, Conceptual thinking, Research skill developing activities, Problem solving projects

10. Name of Faculty and PhD and NET status

Sl. No.	Name of faculty	Status
1	Dr. Usman A	PhD, PDF
2	Dr. Faseela P	PhD, NET
3	Dr. Soorya V PhD, NET	
4	Mrs. Shahana Jasmi A NET	
5	Ms. Riya Johnson	NIL
6	Ms. Hana Backer	NIL
7	Ashfak Ahammed O	NIL

11. Teacher evaluation by the dept (mechanism in the department)

12. Result and result analysis of each programme (UG and PG)

BSc. BOTANY

Total number of students	32
Total number of students attended	32
Total A+	-
Total A	16
Total B	12
Total C	1
Total D	-
Total E	-
Total F	-
Number of students incompleted	3

MSc. BOTANY

Total number of students	11
Total number of students attended	10
Total O	1

Total A+	7
Total A	3

13. No of students qualified state/ national level competitive exams during the year with proof.

Sl.	Name of the	Qualifying	Subject	Phone
No.	student	examination	-	number
1.	Sahla	SET	Natural science	9539321194
2.	Shirin	SET	Natural science	8281984629
3.	Shamnas	SET	Natural science	7034358075
4.	Safwana	SET	Natural science	9605162335
5.	Sayistha	SET	Natural science	8547436050
6.	Shifa Majeed	SET	Natural science	8289897960
7.	Mufeeda	SET	Natural science	8086065341
8.	Kadeeja Parveen	SET	Natural science	8943858567
9.	Sahla	KTET	Biology	9539321194
10.	Shirin	KTET	Biology	8281984629
11.	Husna Sherin	KTET	Biology	8281940658
12.	Shifa Majeed	KTET	Biology	8289897960
13.	Sumayya PP	KTET	Biology	8138997947
14.	Umaibath M	KTET	Biology	9633486163
15.	Kadeeja Parveen	KTET	Biology	8943858567
16.	Rishana	KTET	Biology	7907420856
17.	Mumthas	KTET	Biology	9645568060
18.	Sumi	NET	Library science	9048324211
19	Sudheesha	NET	Life science	7594844237
20	Shifa M	SET	Natural science	9745309549
21	Fouzul Ahsana	SET	Natural science	6282869384
22	Sneha	SET	Natural science	9496362915

14. Annual report (File attached)

III. Research, Extension

1. Seminar/ webinar/ workshops/ etc. conducted (brochure, photo, report, attendance)

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5.3. The Botany Association conducted a workshop on Mushroom cultivation in collaboration with Manjeri Municipality at PG Department of Botany on 20th March 2021. The workshop was well-attended by the students, teachers in the field of botany and Kudumbashree unit of Ward 47, Manjeri Municipality. About 72 participants were present. The workshop started at 10a.m. and the welcome speech was delivered by Dr Usman A (HOD PG Department of Botany). Dr. C. Saidalavi (Principal, KAHM Unity Women's college) gave the presidential address. The presentation and demonstration was done by chief guest Mr. Biju, Mullampara, Manjeri.



2. Research projects undertaken by the students/ departments/ faculty members/ funded by Management /Govt/ NGOs (name of project, award letter, amount details, completion status, link of the agency if any)

BSc Botany - 35; MSc Botany - 27

3 Research Grant received by the faculty/ department (amount /grant, letter of award, details of completion)

Nil

3. Invited Lectures/ extension lectures/ extension activity by the teaching faculty of the department / given by the faculty Members



On 10 March 2021, Dr. Usman A. HOD, Department of Botany delivered a talk on 'An insight in to research methadology' to Botany students. He discussed on the research paper writings and recent research areas in Plant Sciences through the google meet.

4. Details of Guideship of faculty members (award letter, details of PhD scholars)

PhD Scholar: Femina C.C. under the guidance of Dr. Usman A.

5. Community Research Projects/research project for the community/ Startups/ innovation/ incubation etc.

Name of the	Incubation centre inauguration and workshop on mushroom cultivation
webinar	

Number of	72
Participants	
	20/03/2021
Date	
Link to the activity report on the website	Details of participants: https://docs.google.com/document/d/1GPOiKoT0jwssID5rUquXtN3j3te6 OUbK/edit?usp=sharing&ouid=117360444904976911374&rtpof=true&sd =true



6. MOUs and collaborations and activity done by the depts in the year (letter of collaboration, report of activity done through collaboration, photo, no. of people benefited)

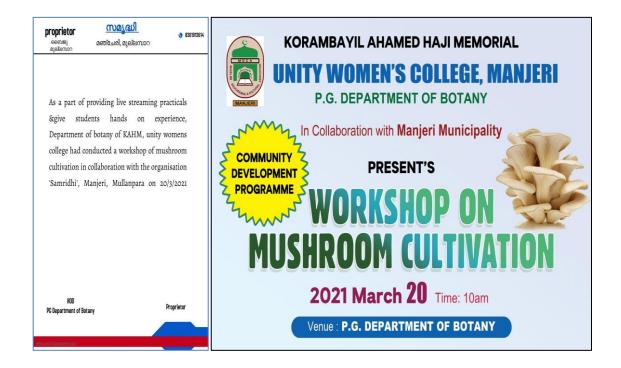
Nil

7. Awards/ honors/ recognitions received by the student/ faculty/ dept.

Nil

8. Extension/ community outreach activities of the department. /Extension activity of students of the department as department initiative

Name of the webinar	Incubation centre inauguration and workshop on mushroom cultivation
Number of	72
Participants	
	20/03/2021
Date	
Link to the activity report on the website	Details of participants: <u>https://docs.google.com/document/d/1GPOiKoT0jwssID5rUquXtN3j3te6</u> <u>0UbK/edit?usp=sharing&ouid=117360444904976911374&rtpof=true&sd</u> <u>=true</u>



9. No. of students participated from the dept. in the extension activities (participated through NSS/NCC etc.)

NCC - Nadiya K.T., Athira E., Athira K., Mufeeda A.

NSS - Fahmi, Nishana, Harsha, Asna, Shahana Sherin

10. Innovative ecosystem created by the dept. (teaching, learning, research, entrepreneurship, extension, knowledge sharing etc)

Name of the webinar	Incubation centre inauguration and workshop on mushroom cultivation
Number of	72
Participants	
	20/03/2021
Date	
Link to the activity report on the website	Details of participants: <u>https://docs.google.com/document/d/1GPOiKoT0jwssID5rUquXtN3j3te6</u> <u>0UbK/edit?usp=sharing&ouid=117360444904976911374&rtpof=true&sd</u> <u>=true</u>



11. Total no of publications during the year by students and faculty members (name of faculty/student, title of publication, journal/book, ISSN/ ISBN/ Link of the article/ whether UGC CARE listed, Scopus, citation index etc)

Eight

12. No of collaboration/ MOU/ signed by the dept in the year, agency involved, activity conducted, date, report, letter of MOU/Collaboration-1

13. Total number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year wise during the year

Year	2020-21
Number	3

Seminars conducted on intellectual property rights (IPR)

Name of the webinar	Basic principles of intellectual property rights (ipr)
Number of Participants	140
Date	27/01/2021
Link to the activity report on the website	Details of participants: https://docs.google.com/forms/d/1AE7xudDdroaiI 6WtxpA4-BDW- httpVpQepgOvsY4KI4c/edit?usp=sharing



Nil

Name of the webinar	Incubation centre inauguration and workshop on mushroom cultivation
Number of Participants	72
Date	20/03/2021
Link to the activity report on the website	Details of participants: https://docs.google.com/document/d/1GPOiKoT0jwssID5rUquXtN3j3te6 0UbK/edit?usp=sharing&ouid=117360444904976911374&rtpof=true&sd =true

Seminars conducted on entrepreneurship (IPR)



14. Roll of honours

The dapartment of botany honoured students, those who shows avademic excellence in the year 2020-21 batch. Awarded them with prize and momento

- 1. B.Sc. Botany-Fathima Nishana KT
- 2. M.Sc.Botany Aisha Fehmin

IV. Infrastructure and Learning Resources

New infrastructural facilities/ assets/ books/ equipment etc. added to dept in the year In terms of infrastructure, Post Graduate department of botany is the best department in KAHM Unity Women's College, Manjeri. Its smart classrooms facilitate teaching through modern tools and techniques. The Department functions in three blocks, Silver jubilee block and Moulana Azad block. First and second B.Sc. classes functions at the silver jubilee block and the rest functions at the second block. Wi-Fi enabled LCD projectors attached tutorial rooms, Botany labs, tissue culture lab, Biochemistry lab, MSc labs, research labs, Mushroom culture area, mushroom research, development and training center, HoD's room, staff room, department library and a smart TV equipped hall with seating capacity of over 100 persons are there in the main Moulana Azad block. The department has an herbarium that consists of 1750 herbarium sheets. The whole classroom and others rooms in the Post graduate department of Botany is well furnished with best academic ambience. Moreover, a sky walk view point is set up above the block for watching and enjoying in leisure time by watching greenish scenery of the college campus.

1. Furniture Facilities of the department

- 1. Bench-60
- 2. Desk-70
- 3. Speech stand-3
- 4. Chair-55
- 5. Table-22
- 6. Laboratory table-52
- 7. Shelf-4
- 8. Fridge-2

2. Instrumentation Facilities of the department

- 1. Autoclave-1 : for cultivating and maintaining microbial cultures.
- 2. Incubator-1
- 3. BOD Incubator-1
- 4. Laminar Air Flow-1 : for conducting aseptic techniques and handling pathogens safely
- 5. Spectrometer-1
- 6. Computer-4 : equipped with bioinformatics and statistical software for data analysis and interpretation.
- 7. Binocular microscope-4
- 8. Other Stereo microcopes-3
- 9. pH meter
- 10. weighing machine
- 11. Agitator mixer
- 12. Colorimeter
- 13. Centrifuges
- 14. Refrigerators and freezers: for short term storage of reagents and biological samples.

3. Laboratories

- · Botany main Lab
- · M.Sc. Lab
- · Biochemistry Lab
- Tissue culture Lab
- · Research Lab

4. No of classrooms with ICT and No. of computers and mobile projectors in the dept.

Class Room No.	Size of the class (dimension and area in sq.m)	Type of ICT Facility	Block
-------------------	--	-------------------------	-------

UG I/II	B309	18m ²	Projector	Silver jubilee block
UG III/IV	B201	36 m ²	Projector	
UG V/VI	E209	54m ²	Projector	
PGI/II (Aided)	E207	48m ²	Projector	
PGI/II (Self)	E206	36m ²	Projector	Library Block
PG III/IV (Aided)	E203	54m ²	Projector	_
PG III/IV (Self)	E304	18m ²	Projector	
Botany Department	E202	70 m ²		
Botany Main Lab	E304	36 m ²	Smart TV	
Biochemistry Lab	E305	54m ²		
Instrumentation Room	E303	48m ²		
Tissue Culture Lab	E301	36m ²		
Department Library	E201	54m ²	Computer	

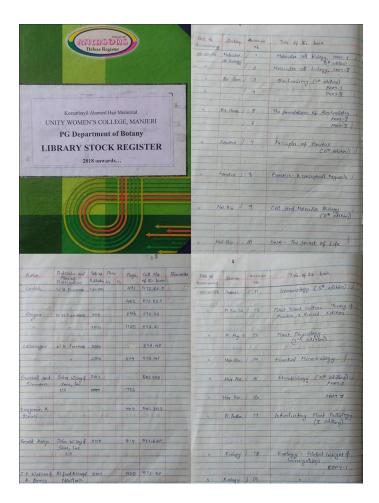
Herbarim Room	E208	18m ²	Computer	
Research Lab	E204	54m ²	Research microscope	
Mushroom Fruting Chamber		54m ²		
Botany Department	E307	70 m ²		
Head of the Department	E202	36 m ²		

5. Learning resources in the dept (books, digital books etc)

Department library details

The students are regularly using the library facility, which is encouraged by assigning regular assignments and seminar presentations that require them to visit the library. This approach ensures that students are making use of the library facility, which is essential for their academic growth. To further promote the usage of the library facility, the faculty accompanies the students to the library during free times and tutorial hours. This approach helps to ensure that students are making the most of the library facility and its resources.

The department and college libraries are also regularly updated with new books to ensure that the students have access to the latest resources. This approach helps to ensure that the students have access to a wide range of books, which is essential for their academic growth. Additionally, the department library keeps black and white copies of international books, which helps to ensure that the students have access to a diverse range of books. This approach helps to broaden their knowledge and perspective and is essential for their academic growth. The assignments, seminar presentations, and faculty accompaniment ensure that the students are making the most of the library facility, while the regular updates and diversity of books ensure that the students have access to a wide range of resources



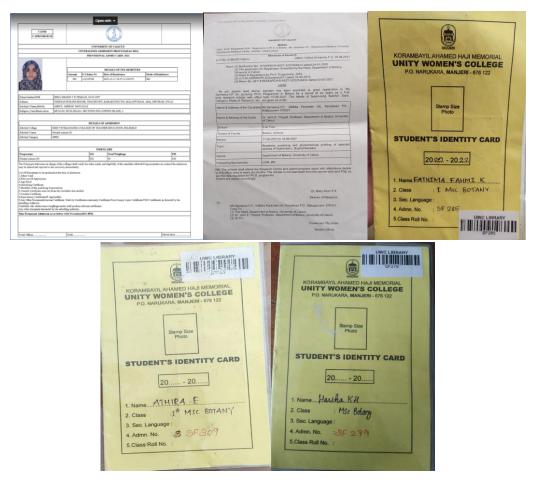
V. Student support and progression

1. No of students joined for higher education from the exit batch with proof

SI. No.	Name of student	Courses	Institution	Phone number
1.	Fausil Ahsna	MSc. Botany	KAHM Unity Women's College	9539909583
2.	Nadiya KT	MSc. Botany	KAHM Unity Women's College	9207847251

3.	Athira E	MSc. Botany	KAHM Unity	7306436085
5.	Aunta L	MSC. Botany	Women's College	7300430085
4.	Anjana	MSc. Botany	KAHM Unity Women's College	7012637459
6.	Harsha KH	MSc. Botany	KAHM Unity Women's College	7034572877
7.	Fahmi	MSc. Botany	KAHM Unity Women's College	9895312481
8.	Nishana	MSc. Botany	KAHM Unity Women's College	9048224182
10.	Athira K	MSc. Botany	Govt. Women's College, Malappuram	7306436085
11.	Shadiya	MSc. Botany	Govt. Women's College, Malappuram	7736387886
12.	Amrutha	MSc. Botany	Mercy College, Palakkad	7736145802
13.	Majida	MSc. Botany	University of Calicut	
14.	Jaysna	MSc. Botany	University of Calicut	8606438210
15.	Umaibath M	MSc Botany	Govt. Women's College, Malappuram	9633486163
16.	Seha Sherin	BEd Natural Science	Sree Vivekananda College of Teacher Education, Palemad	7034273422
17.	Razanath	BEd Natural Science	Sullamussalam College of Teacher Education, Areekode	9633671615
18.	Asna	BEd Natural Science	Markaz College, Adavanad, Valancheri	8590071775
19.	Majitha Nasrin KK	BEd Natural Science	KPPM College, Anakkayam	8606472348

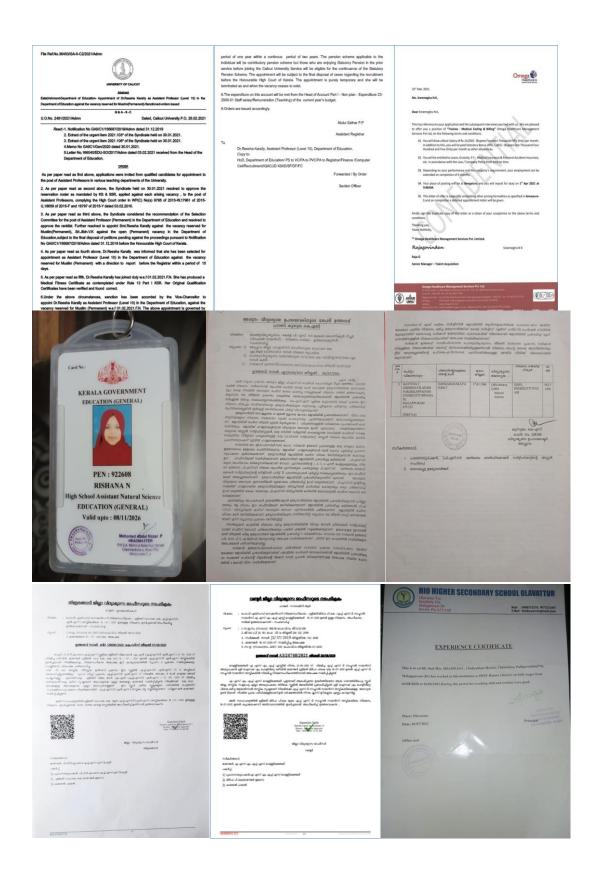
20.	Farsana K	BEd Natural Science	Farook Training College, Farook	9633156870
21.	Ruby Mumthaz	BEd Natural Science	Farook Training College, Farook	7560929317
22.	Sameera MT	BEd Natural Science	MCT, Melmuri	8593903550
23.	Shana P	BEd Natural Science	RVS College, Coimbatore	7034747152
24.	Asla Farhath	BEd Natural Science	MCT, Melmuri	9497760745
25.	Jumailath	BEd Natural Science	EMEA, Kondotty	8593014950
26.	Aswani	BEd Natural Science	University Centre, cherani, Manjeri	8848113911
27.	Marwa	BEd Natural Science	University Centre, Cherani, Manjeri	8113961532
28.	Sajna	BEd Natural Science	Farook Training College, Kozhikode	7558981960
29.	Rinshy	BEd Natural Science	KMCT chathamangalam	8281724207
30.	Sanjana	LLB	Govt. Law College, Kozhikode	9400661307
31.	Sameena VP	PhD Botany	Department of Botany, University of Calicut	7306169762



2. No of students placed from the exit batch and other placements in the year (produce some proof as appointment order, ID card, details and self -attested certificate for self- employment)

Sl. No.	Name of the student	Institution	Post	Course completed	Contact number	Scale of pay				
Permanent Placements										
1	Dr. Reesha Kerally	Department of Education, University of Calicut	Assistant Professor	BSc. Botany	9496362993	57,700/ -				
2	Ms. Sree Megha	Omega Health Care, Bangalore	Initial billing & coding section	BSc. Botany	8594001062	14,050/ -				

3	Mrs. Rishana	PMSAMAHSS, Chemmankadav , Malappuram	HST Natural	MSc. Botany	7907420856	41,300- 87,000/ -
			Science			
4	Mrs. Kavitha T	GHSS Pookkottumpad am	HST Natural Science	BSc. Botany	94974391	41,300- 87,000/ -
5	Mrs. Vafa KK	PPTMY HSS Chettur	HST Natural Science	MSc. Botany	8137099759	41,300- 87,000/ -
6	Mrs. Mirfa PK	ASMHS Velliyencheri	HST Natural Science	MSc. Botany	7510362409	41,300- 87,000/ -
7	Rishana	PMSAM High School, Kodur, Malappuram	HSA Natural Science	MSc. Botany	8606887541	41,300- 87,000/ -



3. No of students 'availing scholarships/ college welfares/ dept welfare schemes

Vijila P. and Shifna C.M. (Dept. welfare), Nishana and Ayisha Fahmi (Class toppers)

Internal Quality Asso KAHM UNITY WOMEN? Application 1. Name: Vijila P. B. Conservation of the second second 3. Variant of the guarding. Stream of the 3. Annal ancome of both parents. 33000. 4. Annal ancome of both parents. 33000. 5. Annal ancome of both parents. 33000. 5. Whether availing any scholarship from 1. Whether availing any scholarship from 1. Whether availing any scholarship from 1. Experimentary and the the same of crade scored in the last COPA – 2.78, Grade. C	S COLLEGE, MANJERI. on Form mination: 27/08/021 bollge? No the amout received annually: Ni ta eanseter university examination: application	Unity Edn Care Department Ald for Free Ship of Financiality Backward Students Internal Quality Assurance Cell (QAC) MITTY WOMEN'S COLLEGE, MANDERL Declaration by the Student Thereby certify that I have availed free ship, as per the <i>Unity Edn Care</i> programme, initial by the IQAC of our institution through my department, during my entire programme, of study' the current academic year.
Viiila P	Valsala P	Signature
Name and Signature of Student Dr. Easeola P.	Vansain P Name & Signature of Guardian Dr. Usman A. Mark	Name and Address: Vijila P., Cherupapadi House, Azimbra Post, Kondotty. Programme, BSc. Botany University Register No.: UTASSB0037 Name of Institution: KAHM Unity Women's College, <u>Manjeri</u> ,
For office use:]	<u> </u>
Unity Edu Care Department Ald for Free Ship of Financially Backward Students Internal Quality Assurance Cell (QAC) KAHM UNVMEN'S COLLEGE, MANJERI Application Form Application F		Unity Edu Care Department Ald for Free Ship of Financially Backward Students Internal Quality Assurance Cell (IQAC) KARH UNITY WOMEN'S COLLEGE, MANJERI.
2. Programme of study: BSc. Botany		Control to the student
	A minion: 27/08/2021 Mege?: No he amount received annually: Nil senseter univeryely examination: agging that I have provided in this application	
Diggramme of radies, Biss. Bokiny, Your. 2007-2021 Name of the guardian: Abdul Harmed CA Amme of the guardian: Abdul Harmed CA Ammed income of both parents. 48000 Your and Date of passing qualitying erans Whether varianting any scholarhip from cc B. Hyss, state the manes of scholarhip and Markar and Letter Grade scene in the last COPA = 3.4, Conds - A D. Inerevy certify that all the above signifying	A minion: 27/08/2021 Mege?: No he amount received annually: Nil senseter univeryely examination: agging that I have provided in this application	Declaration by the Student I hereby certify that I have availed free ship, as per the Unity Eds Core programme, initiated by the IQAC of our institution through my department, during my entire programme, of
Programme of marky. Bis: Bolany Your 2007-2021 Name of the guardian. Adult Harmset Ct. Annual cancen of the bynamine. 48000 Your and Date of passing qualitying earny Whether warding any scheduling from cc If yes, state the name of scholarship and Marks and Letter Grade scored in the last COPA = 5.34, Grade - A 10. Ibareby certify that all the slove inform form are correct to the best of my knowle Jack	A institut: 27/08/2021 Jeger: No te mouter received annually: Nol senseter university examination: agogg that I have provided in this application dge Autor	Declaration by the Student I hereby certify that I have availed free ship, as per the <i>Unity Eds Care</i> grogramme, initiated by the IQAC of our institution through my department, during my entire grogramme, of

4. No of students qualified state/ national level competitive exams during the year with proof.

Sl. No.	Name of the student	Qualifying examination	Subject	Phone number
1.	Sahla	SET	Natural science	9539321194
2.	Shirin	SET	Natural science	8281984629
3.	Shamnas	SET	Natural science	7034358075
4.	Safwana	SET	Natural science	9605162335

5.	Sayistha	SET	Natural science	8547436050
6.	Shifa Majeed	SET	Natural science	8289897960
7.	Mufeeda	SET	Natural science	8086065341
8.	Kadeeja Parveen	SET	Natural science	8943858567
9.	Sahla	KTET	Biology	9539321194
10.	Shirin	KTET	Biology	8281984629
11.	Husna Sherin	KTET	Biology	8281940658
12.	Shifa Majeed	KTET	Biology	8289897960
13.	Sumayya PP	KTET	Biology	8138997947
14.	Umaibath M	KTET	Biology	9633486163
15.	Kadeeja Parveen	KTET	Biology	8943858567
16.	Rishana	KTET	Biology	7907420856
17.	Mumthas	KTET	Biology	9645568060
18.	Sumi	NET	Library science	9048324211



5.Co- curricular/ extra- curricular activities conducted by the dept/ and No. of students participated/ No of students participated in the other department's activities

Nil

5. Association activities conducted with a brief report.

- Activities inaugurated by Dr. Musthafaanand P.H.; PSMO College, Thirurangadi He delivered a talk on'Plants as Immunity Boosters' on 6th July 2020
- Department conducted a webinar series in the name "PHYTOS" and was inaugurated by Dr. Rajesh Kumar. T, NSS College, Manjeri on 8th August 2020. There was an interactive session on "Plant Taxonomy, Classification and Identification of Angiosperm families" for UG and PG students.
- Mr.Sabin P Q, Research scholar, presented a webinar on Career Options In Life Sciences for UG and PG students on 15th January 2021 (PHYTOS)
- On 27th January 2021, Dr C.R Elsy, professor and Coordinator, IPR cell, Kerala Agricultural University, interacted with the UG and PG students at the topic, "Basic Principles of intellectual Property Rights" (PHYTOS)
- Conducted online interactive sessions on lower plant groups, resource persons and topics are;
 - o Dr. Ajayan. K. V Algal Diversity and its Industrial Uses on 23rd February 2021
 - Dr. Manjula.K.M Diversity and Importance of bryophytes on 27th February 2021
 - o Vijisha.P-Pteridophytes, An introduction on 30th march 2021

6. Competitive exam guidance conducted by the dept.

Nil

8 Student achievements

Nil

9 Capacity building programs organized by the dept

The Botany Association conducted a workshop on Mushroom cultivation in collaboration with Manjeri Municipality at PG Department of Botany on 20th March 2021. The workshop was well-attended by the students, teachers in the field of botany and Kudumbashree unit of Ward 47, Manjeri Municipality. About 72 participants were present. The workshop started at 10 a.m. and the welcome speech was delivered by Dr Usman A (HOD PG Department of Botany). Dr. C. Saidalavi (Principal, KAHM Unity Women's College) gave the presidential address. The presentation and demonstration was done by chief guest Mr. Biju, Mullampara, Manjeri.







10. Alumni activities

Unity College Alumnae Association (UCAA) of KAHM Unity Women's College organized the annual get together on 13th February 2021 in the name of YAARA 2021. Alumni President, Mrs. Ishrath Sabah, one of the alumni members of Botany Department, KAHM Unity Women's College conducted the live music programme on the day. As part of the event, a meeting of alumni was held in the botany department of which 30 members attended the same and discussed the future projects.



11 Awards / honors/scholarships given by the department

Nishana and Ayisha Fahmi (Class toppers)

12 Special activities, if any by the department for students for student support

Research station visits, Collection trips



Collection trip to Thikkodi, Regional Agriculture Station (RARS) Pattambi

13 No of Dept. grievance redressal committee meetings (DGRC)

- 2 meetings

VI. Governance, leadership and Management

1. Funds received by the dept from Govt, Non- govt / NGOs/ Fund generated by the dept etc. total funds received by the dept/ raised by the dept in the year (amount and purpose)

Sl. no	Date	Programmes	Resource person	Remuneration amount	Fund
1.	08.03.20 20	Webinar on Plant taxonomy	Dr. Rajesh Kumar T. Assistant Professor Department of Botany NSS College, Manjeri.	2000/-	College management fund
2.	15.01.20 21	Webinar on Career options in Life science	Sabin P.Q. Research Scholar Department of Botany MES Asmabi Collge, Thrissur.	1500/-	College management fund
3.	27.01.20 21	Webinar on Basic Principles of IPR	DR. C.R. Elsy Professor & Coordinator IPR Cell, Kerala Agricultural University	2500/-	College management fund
4.	23.02.20 21	Webinar on Algal diversity & its industrial uses	Dr. K.V. Agayan UGC-Dr. DSK POST Doc fellow Dep.of Botany, Calicut University.	1500/-	College management fund
5.		Webinar on Diversity & Importance of Byophytes	Dr. Manjula K.M. Department of Botany Marthoma College Chungathara.	2000/-	College management fund
6.	20.03.20 21	Workshop on Mushroom cultivation	Mr. Biju, Mullampara	1500/-	College management fund
7.	29.03.20 21	Webinar on Pteridophytes An Introduction	Vijisha P. Research scholar, Zamorin's Guruvayurappan college, Calicut.	-	College management fund

2. Teachers' participation in Orientation / Induction / Refresher programs held by HRDC (name of teacher participated, details and copy of the certificate)

Nil

3. Teachers' participation in FDPs, Workshops, Seminars, Webinars, Conferences etc. (faculty, programme, certificate)

CONFERENCES

Name of teacher who attended	Title of the programme	Duration (from- to) (DD-MM- YYYY)	Organizing institution/agency/body
Dr. Faseela P.	Webinar series on basic principles of intellectual property rights	27.01.2021	KAHM Unity Women's College, Manjeri
	Webinar series on diversity and importance of bryophytes	27.02.2021	KAHM Unity Women's College, Manjeri
	Webinar series on plant taxonomy, classification and identification of angiosperm families	08.10.2020	KAHM Unity Women's College, Manjeri
Dr. Usman A	Webinar series on basic principles of intellectual property rights	27.01.2021	KAHM Unity Women's College, Manjeri
	Webinar series on diversity and importance of bryophytes	27.02.2021	KAHM Unity Women's College, Manjeri
	Webinar series on plant taxonomy, classification and identification of angiosperm families	08.10.2020	KAHM Unity Women's College, Manjeri

Ms. Shahana jasmin	Webinar series on basic principles of intellectual property rights	27.01.2021	KAHM Unity Women's College, Manjeri
Ms. Riya johnson	Webinar series on plant taxonomy, classification and identification of angiosperm families	08.10.2020	KAHM Unity Women's College, Manjeri
Ms. Hana backer	Webinar series on diversity and importance of bryophytes	27.02.2021	KAHM Unity Women's College, Manjeri
Ms. soorya	Webinar series on diversity and importance of bryophytes	27.02.2021	KAHM Unity Women's College, Manjeri
Ms. Husna Banu	Webinar series on plant taxonomy, classification and identification of angiosperm families	08.10.2020	KAHM Unity Women's College, Manjeri
Mr. Ashfaq	Webinar series on plant taxonomy, classification and identification of angiosperm families	08.10.2020	KAHM Unity Women's College, Manjeri

4. Grants received by the faculty members from management for participating in seminars/ workshops/ professional body memberships

Nil

5. No. of DQAC meetings, SQAC meetings, Dept. council meetings, (with sample of minutes)

DQAC meetings 4, SQAC meetings - 2

VII. Institutional Values and Best Practices

1. Gender Equity Programmes conducted by the department (photo, report, no of beneficiaries, attendance) Nil

2. Environmental awareness sessions (Photo and report)

An interactive virtual session on Diversity and Importance of bryophytes was delivered by Dr. Manjula K.M., Guest Faculty, Department of Botany, Mar Thoma College, Chugathara on 27th February 2021 at 10 AM. She discussed the bryophyte habitats and their environmental conditions and also to recognize groups of common bryophytes in their natural environments. Over 107 students participated in the session.



3. Day celebrations (photo, attendance and report)

Nil

4. Divyangjan friendliness activities/ initiatives of the department

Nil

5. Human values/ professional ethics/inclusiveness related programmes of the department

A virtual session on Plant Taxonomy, Classification and Identification of Angiosperm families for UG and PG students was conducted under the webinar series — PHYTOS^{II} on 8th August 2020 at 10 AM. The session was handled by Dr. Rajesh Kumar T., Assistant Professor, NSS College, Manjeri and around 99 students participated in the programme.



6. Any two/ one Best practice(s) of the department with report, outcome,

Mushroom cultivation

The Botany Association conducted a workshop on Mushroom cultivation in collaboration with Manjeri Municipality at PG Department of Botany on 20th March 2021. The workshop was wellattended by the students, teachers in the field of botany and Kudumbashree unit of Ward 47, Manjeri Municipality. About 72 participants were present. The workshop started at 10 a.m. and the welcome speech was delivered by Dr Usman A (HOD PG Department of Botany). Dr. C. Saidalavi (Principal, KAHM Unity Women's College) gave the presidential address. The presentation and demonstration was done by chief guest Mr. Biju, Mullampara, Manjeri.



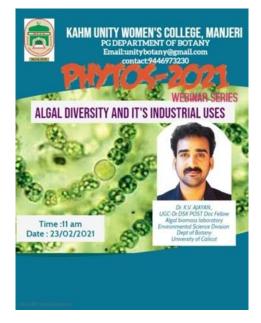
Career opportunities of life sciences

The Association organized an online talk on Career Options in Life Science under the webinar series _PHYTOS' on 15th January 2021 for PG and UG students. Mr. Sabin P Q, Research scholar, Department of Botany, MES Asmabi College, Thrissur dives into career opportunities of life science and various competitive exams also. He is an effective communicator with a passion in motivating and guiding the students to choose their right career path for a life time success. The webinar was conducted through the Google meet and around 256 students attended the programme.



7. Distinctive practices/ potential of the dept. / Uniqueness of the department

The Botany Association decided to conduct online interactive sessions on lower plant groups; algae, bryophytes and pteridophytes. Dr. Ajayan. K.V., POST Doc Fellow, Algal biomass laboratory, Environmental Science Division, Department of Botany, University of Calicut delivered a talk on Algal Diversity and its Industrial Uses on 23rd February 2021 at 11 AM on Google meet. About 121 students participated in the webinar and participants learned more about algal products and algae research.



VIII. Any other relevant data to be produced on the Dept/ other initiatives or activities & Future plans