FIELD VISIT

Report on the Field Visit

On 13th March 2021, B. Voc Agriculture 2019 Batch students were taken for a field visit at Chalakudy (Guruthipala and Analloor). The Farm owner Mr. Joseph explained about the various aspects of agriculture farming. Vegetables were mainly cultivated in his field. Crops such cowpea, tomato, chilly, tapioca etc. He was also maintaining a polyhouse for protected cultivation. Drip irrigation was used for irrigation in the polyhouse. Tomato was cultivated in the polyhouse. He explained well about the production technology of tomato and management of the drip irrigation facility.

Polyhouse with tomato cultivation

B. Voc Agriculture

2020-2021

List of Participants - VAIGA

Roll no	Students name	Signature
1	Aiswarya Murali	
2	Akhila P P	
3	Anusree K J	
4	Arshiya Siddiqa KK	
5	Devika Suresh M	
6	Gopika K G	
7	Gourikrishna A U	
8	Joshna Anie K S	
9	Krishna K	
10	Lakshmi Priya T A	
11	Nandana I B	
12	Niveditha T S	
13	Rakhi K R	
14	Sandhra V S	
15	Sivalakshmi N B	
16	Sradha K S	
17	Sumayya T S	
18	Visamaya Sobhanan	

DEPT OF B.VOC AGRICULTURE
MALA
CARMEL COLLEGE

Department of Botany

Field trip

Algal collection- Report 2020-2021

As a part of our MSc programme we conducted an algal collection trip on 07-04-2021 to Thikkodi , Calicut. We started our journey with 15 MSc students, Dr.Bindhu.K.B, Ms.Gopika V.D and Dr.AthiraK.A from teacher's side and Bincy Varghese lab assistant from Carmel College, Mala at 7 am and reached at Thikkodi at 1 pm . After our lunch we start to collect algae during the low tide at 2.30 pm. The sea was quite calm and all the students enthusiastically collected various algal forms. From there we collected algae like Caulerpa and Ulva from chlorophyceae, Dictyota,Sargassum and Padina from Phaeophyceae, Gracilaria and Gelidium from Rodophyceae. It was really an amazing experience to the students as they were collecting the algae from the natural habitats. We sorted out all the collected algae and washed well and made it ready for herbarium preparation. The collection was over by 6 pm. Then we returned to our college and reached there at 12.30 pm .

Algal collection at Thikkodi on 7-4-2021

From

Dr.Bindhu.K.B
Assistant Professor & Head
Dept. of Botany
Carmel College, Mala

To,

The Principal
Carmel College, Mala

Sub: Request for Field trip-Algal collection
Ref: Nil

Sister,

As we have to conduct algal collection for the preparation of herbarium (As prescribed in the syllabus) for our MSc I semester students, I am herewith requesting you to grant me permission to conduct one day collection trip to Thikkody, Calicut on 7-4-2021.Kindly do the needful.

Thanking you

Your's faithfully

Mala,

5-4-2021

Bindhu.K.B.

Department of Botany
Carmel College, Mala
MSc Botany study trip-Thikkodi, Calicut-07-04-2021

No	Name	Signature
1	Akitha P M	
2	Anjana Antony	
3	Ann Maria Mony	
4	Annmariya Varghese	
5	Arabhi R	
6	Athira M.B	
7	Athira V.V	
8	Haripriya C S	
9	Keerthana T N	
10	Mariya Hentry	
11	Rosmy Antony	
12	Sumayya	
13	Surya Rajan	
14	Swathykrishna B	
15	Vishnupriya C S	
16	Dr.Bindhu.K.B (Teacher)	
17	Dr.Athira K.A (Teacher)	
18	Bincy Devassy (Lab Assistant)	

DEPARTMENT OF ZOOLOGY

OUR TEACHING PEDAGOGY

Our department has adopted many measures to groom the students more responsible towards our mother nation despite of limited curriculum.Tutorial classes & utilization of the multimedia teaching aids like video online materials & power point presentations are incorporated in the day to day teaching learning process that enables the students understanding of the subject.Apart from that, students are given small project works according to the topics and they are even provided with demonstration classes for easy understanding .

Students are facilitated to enhance their knowledge & skills by the webinars arranged by the college management. Many workshops based on the academic topics & career - guidance are provided by management to the students .We have also arranged industrial visits & value added courses to give hands on experience to the students .Faculty to be the part of teaching involve the students in group discussions, interactive sessions, seminars, presentations for better understanding

Experienced learning for students were conducted in the laboratory to connect theories and knowledge learned in the classroom to real-world situations.When students participate in experiential education opportunities, they gain: a better understanding of course material,a broader view of the world and an appreciation of community,insight into their own skills, interests, passions, and values,opportunities to collaborate with diverse organizations and people,positive professional practices and skill sets,the gratification of assisting in meeting community needs,self-confidence and leadership skills.”Learning while observation” is another way followed by our department ,where students visit scientist of other institutions and observe their labs and experiments conducted .

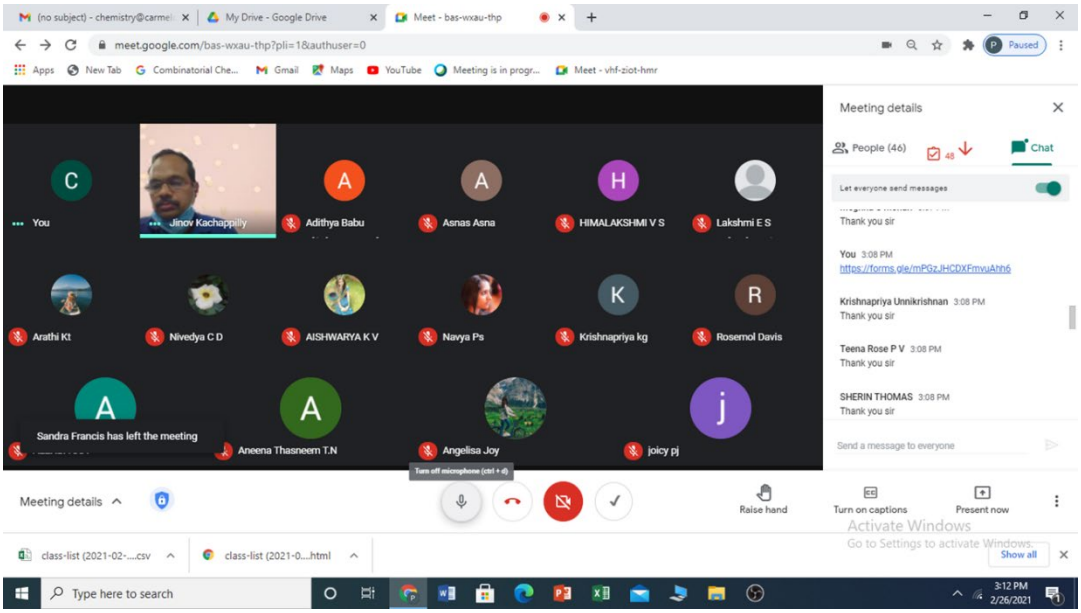
The department organizes co-curricular activities, extra-curricular activities, quiz, club activities ,camps etc which help the students for their all-round

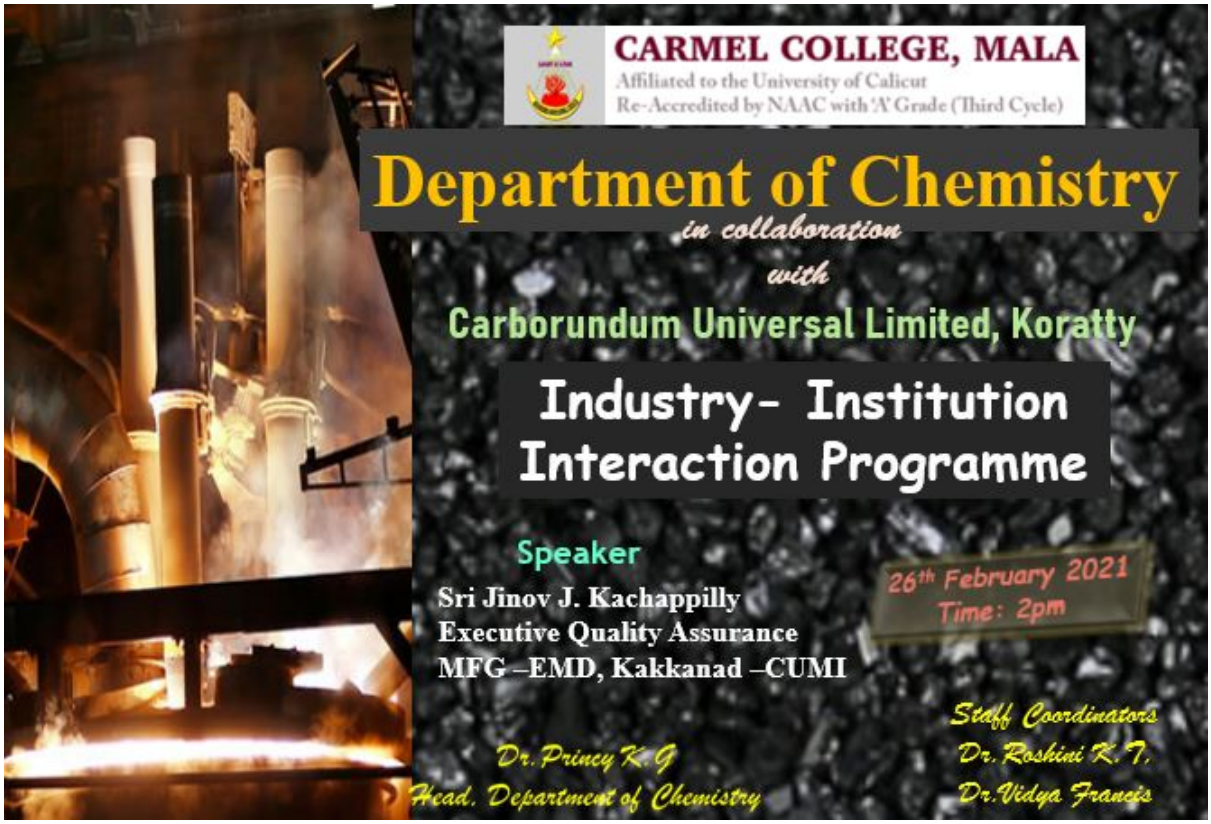
personality developments which in-turn enhance their participative learning skills.Final year students as part of their program has subject based project which helps themselves to know how to work on projects etc.

Industry- Institution Interaction Programme

(26 th February 2021)

In the midst of pandemic,as we were not able to conduct Factory visit an Industry- Institution Interaction Programme was organized in collaboration with **Carborundum Universal Limited, Koratty on 26 th February 2021**. It was mainly for our final year UG and PG students.**Sri Jinov J. Kachappilly, Executive Quality Assurance, MFG –EMD, Kakkanad –CUMI** was the resource person.





Timestamp	1. Name	2. Designation/ Course	4.Overall feedback for the event?
2-26-2021 14:38:37	Dr. Princy K.G.	Associate Professor	Good
2-26-2021 14:58:33	Roshini K.Thumpakara	Assistant Professor	
2-26-2021 15:08:53	Amrutha Thankappan	Bsc chemistry	Good
2-26-2021 15:09:20	Neema joy	3rd Bsc Chemisrty	Very good
2-26-2021 15:09:39	Teena Rose pv	Bsc chemistry	Good
2-26-2021 15:09:51	Aneena Thasneem TN	Bsc Chemistry	good
2-26-2021 15:09:59	Sherin Thomas	Bsc chemistry	*****
2-26-2021 15:10:13	Nivedya C D	Bsc. Chemistry	Good
2-26-2021 15:10:22	Anju R	Bsc chemistry	Good presentation
2-26-2021 15:10:35	Mary Sandra PJ	Bsc. Chemistry	Good and very informative
2-26-2021 15:10:39	Meghna S Mohan	2 nd Bsc Chemistry	Good
2-26-2021 15:10:43	Krishnapriya KG	III BSC chemistry	Very good
2-26-2021 15:10:52	Adithya Babu	B.Sc Chemistry	It was a very good webinar.

2-26-2021 15:11:09	ANJU VISWANATH	GUEST LECTURER	VERY GOOD
2-26-2021 15:11:10	Devikrishna Gopalakrishnan	Bsc chemistry	Good
2-26-2021 15:11:19	KRISHNAPRIYA UNNIKRISHNAN	3rd Bsc CHEMISTRY	Very knowledgable section,Thank you for this section.
2-26-2021 15:11:34	Rosemol	Guest Lecturer	Very goof and informative session
2-26-2021 15:11:42	N S Kunjilakshmi	2nd Bsc Chemistry	Good
2-26-2021 15:11:45	Aswathi sabu	Msc chemistry	Good
2-26-2021 15:11:45	HRIDYA C.R	BSC CHEMISTRY	Excellent
2-26-2021 15:11:58	Alenda Joy	Bsc. Chemistry	We get good idea about factory through presentation
2-26-2021 15:12:02	Praveena kumaran	3rd Bsc Chemistry	Good and helpful
2-26-2021 15:12:02	Angel Aj	Bsc chemistry	Valuable information
2-26-2021 15:12:03	Amritha suresh	Bsc chemistry	Excellent
2-26-2021 15:12:10	Aswathy.M.G	Bsc chemistry	Very good
2-26-2021 15:12:11	Thasleema N.S	Bsc chemistry	Good
2-26-2021 15:12:14	SIYAKVARGHESE	Bsc chemistry	Good
2-26-2021 15:12:22	Navya.p.sahadevan	3rd Bsc chemistry	Very satisfied
2-26-2021 15:12:26	Asna P A	BSc Chemistry	It was an informational and very helpful class.
2-26-2021 15:12:33	Sreya NP	Msc Chemistry	Good
2-26-2021 15:12:40	Anagha Jose	Msc.chemistry	Good
2-26-2021 15:13:16	SANDRA K F	Msc CHEMISTRY	Good
2-26-2021 15:13:22	HIMALAKSHMI V S	Bsc.Chemistry	Excellent
2-26-2021 15:13:27	Dini paul	Bsc chemistry	Good
2-26-2021 15:13:56	Farsana Thajudeen	BSc CHEMISTRY	good
2-26-2021 15:14:08	Roshni Babu A	Msc. Chemistry	It is well explained class
2-26-2021 15:14:13	Anagha shemunan	Bsc chemistry	Good
2-26-2021 15:14:30	Mruthula Mathachan	lll B.sc chemistry	Very good
2-26-2021 15:14:59	Arathi k. t	Msc chemistry	Good
2-26-2021 15:15:00	P S Anagha	BSC chemistry	Good
2-26-2021 15:15:17	Bhivya Babu	MSc.chemistry	Good
2-26-2021 15:15:28	ANGELISA JOY E	MSc chemistry	Good

2-26-2021 15:15:28	ANN MARIA JIBBY M	MSC CHEMISTRY	Good
2-26-2021 15:15:33	Ayishashifanath p	Msc chemistry	Good
2-26-2021 15:16:04	Vaishnavy ks	Bsc chemistry	Excellent very energetic class
2-26-2021 15:19:49	Lakshmi ES	Bsc chemistry	Excellent
2-26-2021 15:23:01	Sona.M.S	Third Bsc.chemistry	very good.
2-26-2021 16:33:54	Priya Poulose	Msc. Chemistry	Excellent
2-26-2021 16:44:59	SHILPA M.G	M.SC CHEMISTRY	GOOD
2-26-2021 16:49:34	Ansa Antony	MSc Chemistry	Very informative and enlightening
2-26-2021 17:41:53	Anu Pauly	MSc.Chemistry	Good
2-26-2021 18:52:35	Aishwarya k v	Bsc. Chemistry	Good and useful

LAB SYLLABUS

DEPARTMENT OF BOTANY
EXPERIMENTAL LEARNING 2020-21
UG Programme

CORE COURSE: 1.ANGIOSPERM ANATOMY, REPRODUCTIVE BOTANY AND PALYNOLOGY

PRACTICAL (ANGIOSPERM ANATOMY)

1. Identification at sight the different types of tissues and vascular bundles.
2. Primary structure of stem, root and leaf of Dicots and Monocots

a. Dicot stem : normal –*Eupatorium*; bi-collateral – *Cephalandra*
b. Dicot root – Pea
c. Monocot stem - Bamboo
d. Monocot root – *Musa*
e. Dicot leaf – *Ixora*
f. Monocot leaf – Grass

3. Secondary structures: Dicot stem– *Vernonia,* Dicot root– *Tinospora*
4. Anomalous secondary thickening in *Boerhaavia*, *Bignonia* and *Dracaena*

PRACTICAL (REPRODUCTIVE BOTANY & PALYNOLOGY)

1. *Datura* anther T.S. (mature).
2. Types of ovules: Orthotropous, Anatropous and Campylotropous (Slides only, drawing not required)
3. Dicot and monocot embryo of Angiosperms (Slides only, drawing not required)
4. Pollen morphology of *Hibiscus*, and pollinia of *Cryptostegia* / *Calotropis* by acetolytic method
5. Viability test for pollen.

a. *In vitro* germination using sugar solution. (cavity slide method)
b. Tetrazolium test
c. Acetocarmine test (Acetocarmine & Glycerine 1:1)

CORE COURSE: 2 MICROBIOLOGY, MYCOLOGY, LICHENOLOGY AND PLANT PATHOLOGY

***PRACTICAL (MICROBIOLOGY*)**

1. Simple staining
2. Gram staining – Curd, root-nodules
3. Culture and isolation of bacteria using nutrient agar medium (demonstration only).

PRACTICAL (MYCOLOGY)

1. Micropreparation – Lactophenol cotton blue – Slides of the above mentioned types

PRACTICAL (LICHENOLOGY)

1. Identification of different forms of Lichens.
2. *Usnea* : structure of thallus, fruiting body

PRACTICAL (PLANT PATHOLOGY)

Identification of the disease, pathogen, symptoms and control measures of the following: (drawing not required)

a. Citrus canker
b. Mahali disease
c. Tapioca mosaic disease
d. Blast of Paddy
e. Quick wilt of pepper
f. Bunchy top of banana
g. Grey leaf spot of coconut

SUBMISSION (PLANT PATHOLOGY)

Students are expected to submit five properly identified Pathology specimens /herbarium during the practical examination of Paper-I held at the end of 4th semester. Diseases mentioned in the syllabus or any locally available common diseases of crop plants can be selected for submission.

CORE COURSE : 3
PHYCOLOGY, BRYOLOGY AND PTERIDOLOGY

PRACTICAL (PHYCOLOGY)

1. Identification of the vegetative and reproductive structures of the types studied.
   a. Cyanophyceae : *Nostoc*
   b. Chlorophyceae: *Chlorella, Volvox, Oedogonium, Chara*.
   c. Xanthophyceae: *Vaucheria*.
   d. Bacillariophyceae: *Pinnularia*.
   e. Phaeophyceae: *Sargassum*.
   f. Rhodophyceae: *Polysiphonia*.

PRACTICAL (BRYOLOGY)

1. *Riccia* – Habit, Anatomy of thallus, V.S. of thallus through antheridium, archegonium and sporophyte.
2. *Anthoceros*- Habit, Anatomy of thallus. V.S. of thallus through antheridium, archegonium and sporophyte.
3. *Bryum* (due to non-availability of *Funaria* at lower altitudes) - Habit, structure of antheridial cluster, archegonial cluster, L.S. of sporophyte.

PRACTICAL (PTERIDOLOGY)

1. *Psilotum*- habit, T.S. of stem, C.S. of synangium (slides only)
2. *Selaginella* – habit, T.S. of stem, T.S. of rhizophore, L.S. of strobilus
3. *Equisetum* - habit, T.S. of stem, L.S. of strobilus
4. *Pteris* - habit, T.S. of stem, C.S. of sporophyll

CORE COURSE: 4
METHODOLOGY AND PERSPECTIVES IN PLANT SCIENCE

PRACTICALS (SCIENTIFIC METHODS)

1. Bibliography searches using online tools
2. Familiarizing latest methods of ICT based presentations

RACTICAL (BIOSTATISTICS)

1. Work out problems under all types mentioned in the syllabus. One example each from all categories should be recorded.
2. Familiarize the technique of data representation (bar diagram, histogram, pie-diagram and frequency curve (both manual and using computer).

RACTICAL (BIOPHYSICS)

1. Preparation of solutions of known concentrations using pure samples and stock solutions
2. Preparation of buffers

3. Measurement of pH using pH meter.
4. Demonstration of the working of different kinds of centrifuges

PRACTICALS (MICROTECHNIQUE)
1. Parts of microscope and its operation (drawing not required)
2. Free hand sectioning of stem, leaves, Staining and mounting.
3. Measurement of pollen size using micrometer.
4. Demonstration of dehydration, infiltration, embedding and microtoming

CORE COURSE : 6
GYMNOSPERMS, PALAEOBOTANY, PHYTOGEOGRAPHY AND EVOLUTION

PRACTICAL (GYMNOSPERMS)
1. *Cycas*- Habit, coralloid root, T.S. of coralloid root, T.S. of leaflet, T.S. of rachis, male cone and L.S. of male cone , microsporophyll, megasporophyll, T.S. of microsporophyll, L.S. of

ovule and seed.
2. *Pinus*- branch of unlimited growth, spur shoot, T.S. of stem and needle, male cone and female cone, L.S. of male cone and female cone, seed.
3. *Gnetum*- Habit, stem T.S., leaf T.S., male and female cones, L.S. of ovule, seed.

PRACTICAL (PALAEOBOTANY)
1 Fossil Pteridophytes - *Rhynia* stem, *Lepidodendron* and *Calamites*
2 Fossil gymnosperms- *Williamsonia*
(Drawings may be replaced by photos with critical notes in the record)

PRACTICAL (PHYTOGEOGRAPHY)
1 Mark the phytogeographic zones of India.

CORE COURSE: 7
ANGIOSPERM MORPHOLOGY AND SYSTEMATICS

PRACTICAL(ANGIOSPEM MORPHOLOGY)

1. Identify the types of inflorescence and fruits mentioned in the syllabus.
2. All the types mentioned under inflorescence and fruits must be represented in the photo album. (All drawings in records are replaced by photo album submission).

PRACTICAL(SYSEMATICS)

1. Students are expected to work out at least two members of each family mentioned in the syllabus and make suitable diagrams (floral diagram and floral formula not needed). Describe them in technical terms and identify up to species using the Flora. Orchidaceae may be excluded from practical examination scheme.

2. Students shall be able to prepare artificial key to segregate any five given plants. This must be recorded.

3. Familiarization of herbarium techniques (Demonstration only).
4. Mounting of a properly dried and pressed specimen of any common wild plant (rare, endangered or endemic plants should not be collected for the purpose) from any one of the families mentioned in the syllabus, with proper herbarium label (to be submitted in the record book).

5. Every student shall submit original images of plants, at least one from each family mentioned in the syllabus, duly certified by Head of the department, at the time of examination. The images of plants should be properly identified and they should carry details like systematic position, GPS location, date, name and reg. no. of the student etc. Habitat, Habit, Inflorescence and single flower should be represented. Web sourced and outsourced images should not be used. The images can be submitted along with the photo album containing images of inflorescence and fruits mentioned under morphology. Individuality should be strictly maintained while preparing the photo album.

6. It is compulsory that every student has to undertake field study trips of 3-5 days to study vegetation of ecologically different areas, under the guidance of teachers. Visits to standard Herbaria, Organizations/ Institutes involved in exploring plant resources, Botanical museums etc. may be conducted as part of study tour. Local habitats like sacred groves, rice fields, wetlands, forests, grasslands etc. also can be selected for field trips. Avoid visit to tourist places with meager plant diversity and of having only entertainment value. Submit a field visit report countersigned by the Head of the department during the practical examination.

7. If a student fails to undergo the study tour he /she may not be permitted to attend the examination.

CORE COURSE: 8

TISSUE CULTURE, HORTICULTURE, ECONOMIC BOTANY AND ETHNOBOTANY

PRACTICAL (TISSUE CULTURE)

1. Preparation of nutrient medium – Murashige and Skoog medium using stock solutions.
2. Familiarize the technique of preparation of explants, surface sterilization, inoculation and subculturing.
3. Preparation of synthetic seeds.
4. Demonstration of anther culture.

PRACTICAL (HORTICULTURE)

1. Preparation of nursery bed and polybag filling.
2. Preparation of potting mixture – Potting, repotting.
3. Field work in cutting, grafting, budding, layering **(**drawing not required).
4. Familiarizing gardening tools and implements. (drawing not required)
5. Establishment of vegetable garden/ Visit to a horticulture station.
6. A brief report of item no. 5 may be recorded.

PRACTICAL (ECONOMIC BOTANY)

1. Students shall be able to identify plants or plant products (raw or processed) studied in theory and shall be able to write Botanical names, Family and morphology of useful parts of source plants.
2. Students need not make any illustrations but make a table in the record giving the details of the items mentioned in the theory syllabus.

PRACTICAL (ETHNOBOTANY)

Students are expected to identify the plants mentioned in the Ethnobotany syllabus and it must be given as a table showing Common name, Binomial, Family and Ethnobotanical significance in the record book. (Drawing not required)

CORE COURSE: 9
CELL BIOLOGY AND BIOCHEMISTRY

PRACTICAL (CELL BIOLOGY)

1. Mitosis - Acetocarmine squash preparation of Onion root tip.
2. Calculation of mitotic index
3. Demonstration of meiosis in *Rhoeo/ Chlorophytum*/ Maize and identification of different stages of Meiosis.

RACTICAL (BIOCHEMISTRY)

1.Qualitative tests for monosaccharides, and reducing non reducing oligosaccharides, starch, amino acids and protein.

1. Molisch's test for all carbohydrates,
2. Benedict's test for reducing sugars
3. Barfoed's test for monosaccharides
4. Seliwanoff's test for ketoses
5. Fearson's test (methyl amine test) for reducing disaccharides
6. Iodine test for starch
7. Ninhydrin test for amino acids and protein
8. Xanthoproteic test for amino acids with aromatic R-groups
9. Millon's test for tyrosine
10. Hopkins- Cole test for tryptophan
11. Biuret test for peptide linkage and proteins

2. Quantitative estimation of protein by Biuret method. (Demonstration only)
3. Quantitative estimation of DNA and RNA by colorimetric/ spectrophotometric method (Demonstration only)
4. Colorimetric estimation of reducing sugars in germinating seeds (Demonstration only)

CORE COURSE: 10
GENETICS AND PLANT BREEDING

PRACTICAL (GENETICS)

1. Students are expected to work out problems related to the theory syllabus. One problem each from all the types mentioned should be recorded.

a. Monohybrid cross
b. Dihybrid cross
c. Test cross and back cross
d. Determination of genotypic and phenotypic ratios and genotype of parents
e. Non epistasis
f. Complementary gene interaction
g. Epistasis: dominant and recessive
h. Polygenic interaction
i. Multiple allelism
j. Chromosome mapping
k. Calculation of Coincidence and interference

***RACTICAL (PLANT BREEDING*)**

1. Techniques of emasculation and hybridization of any bisexual flower.
2. Floral biology of Paddy, any one Pulse and Coconut tree.
3. Visit to a plant breeding station and submission of its report.

CORE COURSE: 11
BIOTECHNOLOGY, MOLECULAR BIOLOGY AND BIOINFORMATICS

PRACTICAL (BIOTECHNOLOGY)

1. Extraction of DNA from plant tissue.
2. Study of genetic engineering tools and techniques using photographs/diagram (Southern blotting, DNA finger printing, PCR)

SUBMISSION (MOLECULAR BIOLOGY)

Visit a research station with well-equipped Biotechnology / Molecular biology lab and submit a duly certified detailed report of the same during the practical examination.

RACTICAL (BIOINFORMATICS)

1. Familiarizing with the different data bases mentioned in the syllabus.
2. Molecular visualization using Rasmol.
3. Blast search of nucleotide sequences

CORE COURSE: 12
PLANT PHYSIOLOGY AND METABOLISM

PRACTICAL

Students should familiarize experiments and details must be recorded. (Drawing not required)

1. Fruit ripening/Rooting from cuttings (Demonstration only).

2. Relation between water absorption and transpiration.
3. Separation of leaf pigments by paper chromatography/ column chromatography /TLC.
5. Effects of light intensity on photosynthesis by Wilmot's bubbler.
4. Thistle funnel osmoscope
5. Ganong's Potometer
6. Ganong's light-screen
7. Ganong's respirometer
8. Kuhne's fermentation vessel
9. Mohl's half-leaf experiment
10. Absorbotranspirometer
11. Demonstration of gravitropism using Klinostat.

CORE COURSE: 13
ENVIRONMENTAL SCIENCE

PRACTICAL

1. Construct a food web from the given set of data, (Representative of a natural ecosystem). (Drawing not required).
2. Construct ecological pyramids of number, biomass and energy from the given set of data (Representative of a natural ecosystem). (Drawing not required).
3. Study of plant communities: Determination of density, abundance, dominance, frequency by quadrat method.
4. Demonstration of determination of Dissolved Oxygen by Winkler’s method.
5. Study of morphological and anatomical characteristics of plant groups: Hydrophytes, Xerophytes, halophytes, epiphytes, parasites. (Drawing not required)

CORE COURSE: 14
ELECTIVE-3 : GENETICS AND CROP IMPROVEMENT

PRACTICAL

1. Visit a leading breeding station in South India and a detailed report should be included in the practical record. The record duly certified by HoD should be submitted at the time of practical examination of core practical paper III.
2. Make illustrations on the floral biology of Rice, Cashew and *Solanum* spp.
3. Demonstration of hybridization in Rice, Cashew and *Solanum* and describe the procedure.

4. Study the variability under induced stress (salinity and moisture) of seedlings of rice and green gram and record the observations

DEPARTMENT OF BOTANY
EXPERIMENTAL LEARNING 2020-21
PG Programme

CP04. PRACTICALS OF PHYCOLOGY, BRYOLOGY, PTERIDOLOGY, GYMNOSPERMS, MYCOLOGY AND LICHENOLOGY

Phycology

1. Collection, preparation and submission of algal herbarium (5 numbers).
2. Collection and study of the types mentioned below and their identification up to generic level using algal monographs:

Chlorophyta: Pediastrum, Scenidesmus, Hydrodyctyon, Ulva, Cladophora, Pithophora, Bulbochaeta, Cephaleuros, Draparnaldiopsis, Bryopsis, Codium, Caulerpa, Halimeda, Desmids (Closterium, Cosmarium), Nitella.
Xanthophyta: Botrydium.
Bacillariophyta: Biddulphia, Coscinodiscus, Cymbella.
Phaeophyta: Ectocarpus, Dictyota, Padina, Turbinaria.
Rhodophyta: Batrachospermum, Gracilaria, Champia.

Bryology

1. Morphorogical and structural study of representative members of the following groups using whole mount
preparations, dissections and transactions:

Asterella, Targionia, Cyathodium, Lunularia, Pallavicinia, Dumortiera, Porella, Anthoceros, Sphagnum and Bryum.

Pteridology

1. Collection, preparation and submission of five herbarium sheets of pteridophytes.
2. Study of vegetative and reproductive features of Lycopodium, Ophioglossum, Angiopteris, Osmunda, Lygodium, Ceratopteris, Pteris, Asplenium, Blechnum, Cyathea, Gleichenia, Trichomanes, Salvinia and Azolla.
3. Study of the following fossils: Rhynia, Lepidodendron, Sphenophyllum, Calamites, Calamostachys, Zygopteris and Anachoropteris.
4. Spore germination and development of prothallus in Knop's Agar medium.

Gymnosperms

1. ldentification of petrifications, compressions, impressions: Lyginopteris, Heterangium, Medullosa, Trignocarpus, Glossopteris, Caytonia, Pentaxylon and Cordaites.
2. Study of vegetative and reproductive structures of Zamia, Ginkgo, Pinus, Cryptomeria, Cupressus, Araucaria, Agathis, Podocarpus, Cephalotaxus, Ephedra and Gnetum.

Mycology

1. Critical study of the following types with the help of fesh/preserved materials by making suitable micropreparations giving emphasis on systematic position, details of vegetative and reproductive structures:

Stemonitis, Saprolegnia, Phytophthora, Albugo, Mucor, Pilobolus, Saccharomyces, Xylaria, Chaetomium, Peziza, Puccinia, Auricularia, Polyporus, Ganoderma, Lycoperdon, Dictyophora, Geastrum, Cyathus, Aspergillus, Curvularia, Alternaria, Fusarium, ColIetotrichum, Parmelia, Usnea.
Practical records:
Submission of certified record of practicals at the time of terminal evaluation.

Field work:

2 days of field work for the in situ study of the types of the above areas of study and submission of a field report.

CP05. PRACTICALS OF MICROBIOLOGY, PLANT PATHOLOGY, ANGIOSPERM TAXONOMY, ANGIOSPERM EMBRYOLOGY, PALYNOLOGY AND LAB TECHNIQUES.

Microbiology

1. Test for the presence of coliform bacteria in contaminated water.
2. lsolation of Eubacteria and Cyanobacteria from soil by dilution plate method.
3. lsolation of pure bacterial culture by streak plate method.
4. Staining of bacteria (negative staining, Gram staining and spore staining).
5. Demonstration of bacterial motility by hanging drop method.
6. Morphological studies on Scytonema, Aphanocapsa, Spirulina, Oscillatoria, Anabaena.

Plant Pathology

1. Submission of five herbarium sheets of pathological specimens.
2. Detailed lab study of the following diseases:

Bunchy top of banana, Bacterial blight of paddy, Bud rot of coconut, Mahali of Arecanut, Powdery mildew of rubber, Abnormal leaf fall of rubber, tikka disease of Ground nut, Late blight of potato, Blister blight of tea, wheat rust, coffee rust, grey leaf spot of coconut, Phytophthora foot rot of pepper, rhizome rot of ginger and turmeric, angiospermic parasites- Viscum and Dendropthoe.

3. Technique of isolation and pure culture of pathogens.

Angiosperm Anatomy

1. Study of anomalous secondary growth in roots and stems of Aristolochia, Strychnos, Amaranthaceae, Nyctaginaceae, Bignoniaceae and Agavaceae.
2. Nodal anatomy of different types.
3. Leaf anatomy: epidermal peels and TS of lamina.

Embryology

1. Study of anther development of Datura.
2. Preparation of dissected whole mounts of microsporangium.
3. Study of megaspore mother cell, megaspore and embryo sac.
4. Study of the receptivity of stigma and in situ germination of pollen.
5. Dissection of stages in the development of embryo and endosperm.
6. Pollen germination using hanging drop technique.
7. Demonstration of intra ovarian pollination.

Palynology

1. Anaiysis of honey for microscopic examination of pollen.
2. Calculation of percentage of viable pollen by using T Z test.
3. Study of pollen wall by acetolysis.

Lab Techniques

1. Measurement of microscopic objects - Micrometry.
2. Camera lucida drawing - calculation of magnification
3. Double stained permanent sections - free hand section, Microtome serial sections.
4. Preparation of whole mounts, macerations and smears.
5. Submission of 10 permanent slides - which should include microtome serial sections, free hand sections, macerations, whole mounts and smears.

Practical records:

Submission of certified record of practicals at the time of terminal evaluation.

Field work:

2 days of field work for the in situ study of the types of the above areas of study and submission of a field report.

CP09. PRACTICALS OF CELL BIOLOGY, MOLECULAR BIOLOGY, BIOPHYSICS, CYTOGENETICS,

Cell Biology

1. Study of Mitosis in root tip cells.
2. Pre-treatment of root típs with colchicine /hydroxy quinoline /paradichlorobenzene and study of chromosomes in Chlorophytum,/ Zea mays/ Crotalaria/ Cyanotis.
3. Isolation of plastids and mitochondria.
4. Chromosome banding

Molecular Biology

1. Working out problems from molecular genetics.
2. lsolation of nucleic acid and identification of histones by SDS-PAGE.
3. lsolation of plant DNA and its quantification by spectrophotometric/ calorimetric method.
4. lmmunological techniques: ELISA and Western BIot.

Biophysics

1. Preparation of buffers and measurement of pH using pH meter.
2. Determination of isoelectric pH.
3. Paper chromatography: Separation of sugars.
4. Thin layer chromatography- separation of amino acid mixtures.
5. Calorimetric and spectrophotometric elimination of proteins by Biuret / Lowry's method.
6. Estimation of amino acid by ninhydrin method (colorimetric).

Cytogenetics

1. lnduction of polyploidy using colchicine; dlfferent methods of the application of colchicine.
2. Effect of induced and spontaneous polyploidy on plant phenotype, meiosis, pollen and seed fertility and fruit set.
3. Preparation of karyotype and ideogram of plant meristematic cells.
4. Cytological studies in callus tissues.
5. Study of meiosis in translocation heterozygotes (Rheo discolor)
6. Study of polytene chromosomes.

Preparation of lab record and submission for valuation.
Visit to a reputed molecular biology lab and submission of a report.

CP10. GENETICS, BIOSTATISTICS, PLANT BREEDING, PLANT ECOLOGY, CONSERVATION BIOLOGY, PHYTOGEOGRAPHY AND FOREST BOTANY

Genetics

1. Problems from linkage, tetrad analysis, quantitative genetics and population genetics.

Biostatistics

1. Problems from Mean, standard deviation, Coefficient of variation, tests of significance and correlation analysis.
2. Use of computer programmes for statistical analysis.

Plant Breeding

1. Study of floral morphology and flower structure in crop plants- rice, cashew, pulses, Solanum, Capsicum.
2. Practice of hybridization technique in self and cross pollinated plants mentioned in (1).
3. Biometrical techniques in Plant Breeding- analysis of variability.

Ecology and Conservation biology

1. Determination of food chains and food web in aquatic ecosystem.
2. Determination of the minimum size of the quadrat suitable for an area using species area curve method.
3. Determination of the Importance Value Index (lVl) of plant species in the community by quadrat, line and belt transect methods.
4. Comparative study of polluted and non.polluted aquatic ecosystems.
5. Visit to a meteorological station, national park or wild life sanctuary, sewage treatment unit and major construction site.
6. Estimation of dissolved oxygen content in the water sample by Winkler’s method.
7. Determination of primary production in water samples by light and dark bottle method (Winkler's method).
8. Determination of dissolved carbon dioxide content in water samples.
9. Determination of frequency of plant species of an area and heterogeneity of vegetation using transect method.

Phytogerography

1. Identification of the various floristic and vegetational regions of the world and India in maps.

Forest Botany

1. Study of the major and minor forest products of Kerala and their uses.

Preparation and submission of lab record

Visit to one plant breeding station and one ecologically sensitive area and submission of reports

CP14. PRACTICALS OF PLANT PHYSIOLOGY, METABOLISM, BIOCHEMISTRY, ANGIOSPERM MORPHOLOGY AND TAXONOMY

Plant Physiology

1. Determination of water potential by tissue weight change method.
2. Extraction of leaf pigments and preparation of absorption spectra of chlorophylls and carotenoids.
3. Demonstration of Hill reaction.
4. Separation of leaf pigments by paper chromatography and column chromatography.
5. Effects of light intensity on photosynthesis by Wilmot's bubbler.
6. Determination of sugars and amino acids in germinating seed by TLC.
7.Extraction of seed proteins based on solubility.
8. Biochemical analyses of leakages from seeds during germination.
9. Analyses of proline in water stressed plants.
10. Testing of seed viability by NBT test.
11. Changes in the reserve proteins during germination.

Metabolism

1. Extraction of enzyme: Any enzyme.
2. Effect of substrate on enzyme and determination of its Km value.
3. pH dependent activity profile of enzymes.
4. Ammonium sulphate precipitation of enzymes.
5. Desalting of proteins by gel filtration using Sophadex G25/ dialysis
6. Separation of isoenzymes by native PAGE.
7. Determination of enzyme / protein sub units by SDS PAGE.
8. Metabolism of germinating seeds - changes in metabolisable carbohydrates.

Biochemistry

1. Qualitative tests for monosaccharides, reducing and non reducing oligosaccharides, starch, amino acids and protein.
2. Quantitative estimation of reducing sugars and starch.
3. Qualitative tests for lipids. Emulsification, saponification, acrolein test, Boundouin's test.
4. Quantitative estimation of amino acids.
5. Quantitative estimation of protein by Biuret / Branford's /Lowry et al method.
6. Quantitative estimation of DNA and RNA (colorimetric / spectrophotometric)
7. Quantitative estimation of total phenolics.

Morphology

1. Preparation of cleared whole mounts of floral parts to show vasculature.
2. Examination of the following with the help of dissections and hand sections: Transmitting tissues/canals in style and stigma; Different types of ovaries; Different types of placentation, vasculature of androecium and gynoecium in special types of flowers.

Taxonomy

1. Familiarization with local flora and construction of keys – use of floras in identification up to species.
2. Study of diagnostic features of the families studied in the theory paper with special reference to their economic aspects.
3. Study of the following families with special reference to morphology of modified parts, economic importance, interrelationships and evolutionary trends: Magnoliaceae, Ranunculaceae, Menispermaceae, Nymphaeace, Polygalaceae, Caryoplyllaceae, Clusiaceae, Sterculiacéae, Meliaceae, Sapindaceae, Rosaceae, Melastomaceae, Rhizophoraceae, Aizoaceae, Rubiaceae, Sapotaceae, Gentianaceae, Boraginaceae, Convolvulaceae, Scrophulariaceae, Pedaliaceae, Verbenaceae, Nyctaginaceae, Euphorbiaceae, Urticaceae, Casuarinaceae, Orchidaceae, Zingiberaceae, Amaryllidaceae, Commelinaceae, Araceae, Cyperaceae and Poaceae.
4. Dissection of at least two members of each family in the laboratory, making suitable sketches, describing them in technical terms and identifying them constructing appropriate floral diagrams.
4. Field study of three days under the guidance and supervision of teachers at an ecologically different locality and submission of a field study report certified by the teacher concerned. The report should contain ecology of flora of the area studied.
5. Collection of plant specimens following the standard means of plant collection for preparation of herbarium. Each student shall submit a minimum of 25 such herbarium specimens with QR code along with the field book for the Practical examination.
6. Problems in Bar Coding

CP15. PRACTICALS OF PLANT RESOURCES, BIOTECHNOLOGY AND BIOINFORMATICS

Plant Resources

1. Morphological study of the source plants mentioned in the theory syllabus and identification of the plants and plant products.

Biotechnology- A. Tissue Culture.

1. Preparation and sterilization of culture media.
2. Culturing of Carrot /Tobacco/Datura.
3. Estimation of cell growth ín callus culture by fresh wt. and dry wt.
4. lnduction of multiple shoots using axillary and apical meristems as explants.
5. Plantlet regeneration from callus.
6. Identification of secondary metabolites in cultures.

Biotechnology- B. Genetic Engineering

lsolation of DNA.

Bioinformatics-

A. Computer Application

1. Acquiring basic computer operation and internet browsing skills in Windows and Linux platforms.
2. Acquiring basic word processing/ data entry skills using popular (both commercial and open source) packages such as MS-Word, K-Word, Open Word, PageMaker.
3, Acquire graphic processing skills using popular packages such as PhotoShop, Corel Draw, Chem Draw.
4. Preparation of scientific presentations using packages such as MS-PowerPoint.
5. Use of statistical packages such as SPSS, Biostat, Origin, MS-Excel.

B. Bioinformatics

1. Acquisition of basic skills in Internet browsing
2. Use of web browsers and search engines.
3. Use of biological and bioinformatic websites Agris, Agricola, BIOSI S, CABWeb.
4. Visit to Bioinformatics websites: NCBI, SWISS PROT, PIR, PDB.

Submission of lab record

Submission of 10 plant products directly collected by the student from the field with a note on the source plant and plant part.

BOT04ET01-6. Genetics and Crop Improvement

Practicals

1. Morphological and floral studies of major crops.
2. identification of crop species/ subspecies/ varieties of the above crops.
3. Identification of the major pests and diseases of the above crop plants and submission of specimens.
4. Study of chemical composition and use of major pesticides, weedicides, fungicides and other plant protection formulations.
5. Visit to two major plant breeding stations of South India and submission of a certified report/ or placement training at a plant breeding institute for 30 days and submission of a certified report.

BOT04ET02-2. Pathology of Plantation Crops and Spices.

Practicals

1. Isolation of fungal and bacterial pathogens of the above diseases, growing them in appropriate nutrient media and identification of the pathogens and preparation of drawings and photographs.
2. Field collection and preservation of the infected parts in the case of the above diseases and preparation of morphological and microscopic drawings and photographs and identification of the diseases at field and lab levels.
3. Study of disease cycle of a pathogen in any one of the above crop plants and demonstration of Koch's postulates and preparation of an illustrated report.
4. Visit to two crop research stations and first hand acquaintance with the major plant protection activities in the station and submission of reports/ or lab placement training in the plant protection division of a crop research station for a period of 30 days and submission of a report.

Student Projects

BBA Project Participant List

Sl. No	Name of Student	Level-UG/PG	Tile of the Project/Dissertation	Suprevisor/Guide
1	Meenu Mohan	UG	A study on empirical analysis of the perception of management students about their career life with special reference to Carmel College, Mala	Nayana P
2	Gini George	UG	A study on investment habits among the acadamisions with special reference to mala panchayat	Aleena Raju
3	Sachitha KS	UG	A study on the problems and prospects of agricultural finance with special reference to 14th ward of Puthenvelikara Gramapanjayath	Aleena Raju
4	Anna Rose	UG	Readers preference towards Malaya Manorama newspaper in V th ward of Poyya grama panchayath	Nayana P
5	Megha T M	UG	"A Study On Measurement Of Brand Awareness And Brand Perception Of Himalaya Products With Special Reference To 2nd Ward Of Puthenchira Grama Panchayat"	Aleena Raju
6	Anjitha balakrishnan	UG	A study on the usage and satisfaction of UPI service among youngsters in Kodassery panjayath.	Nayana p
7	Soumya Varghese	UG	A study on consumer preference towards sunsilk shampoo with special reference to 4th ward of Annamanada grama panchayath	Aleena Raju
8	Sandra mv	UG	A study on job satisfaction among bank employees with special reference to mala gramapanchayath	Aleena Raju
9	Anjali k. s	UG	A study on effectiveness of online learning during pandemic covid 19 with special reference to Carmel college mala	Aleena Raju
10	Anuja Shaju	UG	"A study on the customer satisfaction of Amazon online shopping with special reference to 11th ward off Mala Grama panchayath"	Aleena Raju
11	Aswathy Suresh	UG	"A Study on women empowerment through Kudumbashree on the 11th ward of Mala Grama panchayath	Nayana P
12	Ambika Devi Cb	UG	"A Study on Traditional food and fast food special reference to XIIIth ward of chalakudy muncipality	Aleena Raju
13	P.Deepa	UG	"A study on customer attitude towards allopathic medicine with special reference to Nesh Pharma , Thrissur"	Aleena Raju
14	Anupama K.J	UG	“A STUDY ON PREFERENCE OF FILM VIEWERS TOWARDS MULTIPLEX THEATRE AND ORDINARY THEATRE WITH SPECIAL REFERENCE TO KODUNGALLUR MUNICIPALITY-WARD NO. I”	Nayana P
15	Arya M S	UG	A study on passenger satisfaction of Indian railway with reference to puthenchira panchayath"	Nayana P
16	Ashmi VN	UG	A study on consumer buying behaviour of periyar agro products	Aleena Raju
17	Listy Sebastian	UG	A Study on Effectiveness of recruitment and selection system with special reference to Adecco India Pvt Ltd	Aleena Raju

18	Anna Pauly	UG	A study on perception of undergraduate nursing students towards nursing profession with special reference to Poyya panchayat	Aleena Raju
19	Jomariya Shaju	UG	A study on customer delight oh honda activa scooters with special reference to carmel college Mala	Nayana P
20	Amritha K S	UG	A study on demand of ayurvedic herbal pro mcducts of kandamkulathy vydhyasala with special reference to kuzhoor panchayath IVth ward	Nayana P
21	Minnu padmana bhan	UG	A study on consumer behaviour of patanjali products with special reference to 12th ward of karukutty	Nayana P
22	Safvana P N	UG	A study on customer satisfaction towards Akshaya services with special reference to 8th ward of Eriyad Gramapanchayath	Nayana P
23	Sunanda .N.S	UG	A study on consumer behaviour of ayush product with special reference to 14th ward of vallivattom	Nayana p
24	Aiswarya Lakshmi	UG	A study on problems and challenges faced by the women entrepreneurs special reference to Chalakudy area	Nayana p

DEPARTMENT OF COMPUTER SCIENCE

Report on project work done

The department of Computer Science offers Project based learning to the Final year students. Students are divided into groups of 4. The objective of the project work is to develop a quality software solution by following the software engineering principles and practices. During the development of the project the students should be involved in all the stages of the software development life cycle (SDLC). The main objective of this project course is to provide learners a platform to demonstrate their practical and theoretical skills gained during five semesters of study in the BCA Programme.

During project development students are expected to define a project problem, do requirements analysis, systems design, software development, apply testing strategies and do documentation with an overall emphasis on the development of robust, efficient and reliable software systems. The project development process has to be consistent and should follow standards. For example database tables designed in the system should match with the E-R Diagram. SRS documents to be created as per IEEE standards.

Students are encouraged to work on a project preferably on a live software project sponsored by industry or any research organization. Topics selected should be complex and large enough to justify as a BCA final semester project. The courses studied by the students during the BCA Programme provide them the comprehensive background knowledge on diverse subject areas in computer science such as computer programming, data structure, DBMS, Computer Organization, Software Engineering, Computer Networks, etc., which will be helping students in doing project work. Students can also undertake group projects to learn how to work in groups.

Project Details are given below :

SI NO	REG NO	NAME	PROJECT GUIDE	PROJECT TITLE
1	CRASBCA001	Aiswarya Shaju	Ms Sandra Jose	CLIQUE - Student Faculty Document Sharing System and Study Aid
2	CRASBCA002	Akshaya Varghese	Ms Lakshmi Anand	HOTO - Hotel Management System
3	CRASBC	Aleena	Ms Ann	PRESENCIA - College Attendance

Hea

DEPARTMENT OF COMPUTER SCIENCE
Date.....
CARMEL COLLEGE, MALA

	A003	Wilson	Mariya Davis	Management System
4	CRASBCA004	Angel Maria Martin	Ms Sandra Jose	CLIQUE - Student Faculty Document Sharing System and Study Aid
5	CRASBCA006	Neethu V Joy	Ms Ann Mariya Davis	PRESENCIA - College Attendance Management System
6	CRASBCA007	Safira P N	Ms Lakshmi Anand	HOTO - Hotel Management System
7	CRASBCA008	Sandra K S	Ms Lakshmi Anand	HOTO - Hotel Management System
8	CRASBCA009	Sherseena P M	Ms Sandra Jose	FOODLYNN - Food Ordering And Delivering System
9	CRASBCA010	Sindhoora K T	Ms Lakshmi Anand	RESFEBER - Tourist Guide System
10	CRASBCA011	Sreelakshmi P G	Ms Sandra Jose	CLIQUE - Student Faculty Document Sharing System and Study Aid
11	CRASBCA012	Varsha Shaju	Ms Ann Mariya Davis	PRESENCIA - College Attendance Management System
12	CRASBCA013	Anjali I P	Ms Lakshmi Anand	RESFEBER - Tourist Guide System
13	CRASBCA014	Anjana Babu	Ms Sandra Jose	FOODLYNN - Food Ordering And Delivering System
14	CRASBCA015	Diuthy R D	Ms Lakshmi Anand	HOTO - Hotel Management System
15	CRASBCA016	Gayathri Menon	Ms Sandra Jose	FOODLYNN - Food Ordering And Delivering System
16	CRASBCA017	Lima K D	Ms Sandra Jose	CLIQUE - Student Faculty Document Sharing System and Study Aid
17	CRASBCA018	Neenu Shaju	Ms Sandra Jose	FOODLYNN - Food Ordering And Delivering System
18	CRASBCA019	Rahmath P S	Ms Lakshmi Anand	RESFEBER - Tourist Guide System
19	CRASBCA020	Sona Johny	Ms Lakshmi Anand	RESFEBER - Tourist Guide System

Greetings

Head of Department

DEPARTMENT OF COMPUTER SCIENCE
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Project Details 2020-21				
COURSE CODE		**BCA6B16**		
COURSE NAME		**PROJECT AND VIVA VOCE**		
SI NO	**REG NO**	**NAME**	**PROJECT GUIDE**	**PROJECT TITLE**
1	CRASBCA001	Aiswarya Shaju	Ms Sandra Jose	CLIQUE - Student Faculty Document Sharing System and Study Aid
2	CRASBCA002	Akshaya Varghese	Ms Lakshmi Anand	HOTO - Hotel Management System
3	CRASBCA003	Aleena Wilson	Ms Ann Mariya Davis	PRESENCIA - College Attendance Management System
4	CRASBCA004	Angel Maria Martin	Ms Sandra Jose	CLIQUE - Student Faculty Document Sharing System and Study Aid
5	CRASBCA006	Neethu V Joy	Ms Ann Mariya Davis	PRESENCIA - College Attendance Management System
6	CRASBCA007	Safira P N	Ms Lakshmi Anand	HOTO - Hotel Management System
7	CRASBCA008	Sandra K S	Ms Lakshmi Anand	HOTO - Hotel Management System
8	CRASBCA009	Sherseena P M	Ms Sandra Jose	FOODLYNN - Food Ordering And Delivering System
9	CRASBCA010	Sindhoora K T	Ms Lakshmi Anand	RESFEBER - Tourist Guide System
10	CRASBCA011	Sreelakshmi P G	Ms Sandra Jose	CLIQUE - Student Faculty Document Sharing System and Study Aid
11	CRASBCA012	Varsha Shaju	Ms Ann Mariya Davis	PRESENCIA - College Attendance Management System
12	CRASBCA013	Anjali I P	Ms Lakshmi Anand	RESFEBER - Tourist Guide System
13	CRASBCA014	Anjana Babu	Ms Sandra Jose	FOODLYNN - Food Ordering And Delivering System
14	CRASBCA015	Diuthy R D	Ms Lakshmi Anand	HOTO - Hotel Management System
15	CRASBCA016	Gayathri Menon	Ms Sandra Jose	FOODLYNN - Food Ordering And Delivering System
16	CRASBCA017	Lima K D	Ms Sandra Jose	CLIQUE - Student Faculty Document Sharing System and Study Aid
17	CRASBCA018	Neenu Shaju	Ms Sandra Jose	FOODLYNN - Food Ordering And Delivering System
18	CRASBCA019	Rahmath P S	Ms Lakshmi Anand	RESFEBER - Tourist Guide System
19	CRASBCA020	Sona Johny	Ms Lakshmi Anand	RESFEBER - Tourist Guide System

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DEPARTMENT OF BOTANY

STUDENTS PROJECT DETAILS 2020-21

UG

Sl.No	Reg.No	Name	Project Topic	Guide
1.	REG.NO:CRASSBO001	AMRUTHA M.P.	*Manihot Esculenta* Crantz *Manihot Esculenta* Crantz -Cultivation Methods , Varieties & Disease Management	Dr.Bindhu K B
2.	REG.NO:CRASSBO002	ANJU K.A.	*Manihot Esculenta* Crantz -Cultivation Methods , Varieties & Disease Management	Dr.Bindhu K B
3.	REG.NO:CRASSBO003	ANNMARY JOSE	*Manihot Esculenta* Crantz -Cultivation Methods , Varieties & Disease Management	Dr.Bindhu K B
4.	REG.NO:CRASSBO004	APARNA BALAN	*Manihot Esculenta* Crantz -Cultivation Methods , Varieties & Disease Management	Dr.Bindhu K B
5.	REG.NO:CRASSBO005	ASWATHY LAVAN	*Manihot Esculenta* Crantz -Cultivation Methods , Varieties & Disease Management	Dr.Bindhu K B
6.	REG.NO:CRASSBO006	GAYATHRI APPUKUTTAN	Studies on Tuber Crops	Dr.Sr.Kochuthressia K P
7.	REG.NO:CRASSBO007	JEENA JOHNSON	Studies on Tuber Crops	Dr.Sr.Kochuthressia K P
8.	REG.NO:CRASSBO008	JISA A.J.	Studies on Tuber Crops	Dr.Sr.Kochuthressia K P
9.	REG.NO:CRASSBO009	PRIYA VARGHESE	Studies on Tuber Crops	Dr.Sr.Kochuthressia K P
10.	REG.NO:CRASSBO010	SANDHRA	Studies on Tuber Crops	Dr.Sr.Kochuthressia K P
11.	REG.NO:CRASSBO011	SHINCY P.G.	Phytochemistry, cultural practices and uses of *Zingiber officinale* (Ginger) *Curcuma longa* (Turmeric) Zingiberaceae	Dr.Sinjumol Thomas
12.	REG.NO:CRASSBO012	AISWARYA K.S.	Phytochemistry, cultural practices and uses of *Zingiber officinale* (Ginger) *Curcuma longa* (Turmeric) Zingiberaceae	Dr.Sinjumol Thomas
13.	REG.NO:CRASSBO014	AMY JAYACHANDRAN	Phytochemistry, cultural practices and uses of *Zingiber officinale* (Ginger) *Curcuma longa* (Turmeric) Zingiberaceae	Dr.Sinjumol Thomas
14.	REG.NO:CRASSBO015	ANNETTE	Phytochemistry, cultural practices and uses	Dr.Sinjumol Thomas

		ANTONY	of *Zingiber officinale* (Ginger) *Curcuma longa* (Turmeric) Zingiberaceae	
15.	REG.NO:CRASSBO016	APARNA T.R.	Phytochemistry, cultural practices and uses of *Zingiber officinale* (Ginger) *Curcuma longa* (Turmeric) Zingiberaceae	Dr.Sinjumol Thomas
16.	REG.NO:CRASSBO017	BEEFATHUMMABI P.V.P	Beetle Vine	Jipcy mol.P
17.	REG.NO:CRASSBO018	GRACE JOHN	Beetle Vine	Jipcy mol.P
18.	REG.NO:CRASSBO019	JANAS JAYACHANDRAN	Beetle Vine	Jipcy mol.P
19.	REG.NO:CRASSBO020	MEGHA K.B.	Beetle Vine	Jipcy mol.P
20.	REG.NO:CRASSBO021	*NANDANA V.J.*	*Beetle Vine*	*Jipcy mol.P*
21.	REG.NO:CRASSBO022	SAFNA LATHEEF	*Cinnamon zeylanicum* Blume. cultivation methods and varieties"	Dr.Athira K A
22.	REG.NO:CRASSBO023	SOJA K.J.	*Cinnamon zeylanicum* Blume. cultivation methods and varieties"	Dr.Athira K A
23.	REG.NO:CRASSBO024	SREELAKSHMI P.S	*Cinnamon zeylanicum* Blume. cultivation methods and varieties"	Dr.Athira K A
24.	REG.NO:CRASSBO025	SREESHA K.N.	*Cinnamon zeylanicum* Blume. cultivation methods and varieties"	Dr.Athira K A
25.	REG.NO:CRASSBO026	SRUTHY.V.	*Cinnamon zeylanicum* Blume. cultivation methods and varieties"	Dr.Athira K A
26.	REG.NO:CRASSBO027	SUKANYA K.P.	*Cinnamon zeylanicum* Blume. cultivation methods and varieties"	Dr.Athira K A

DEPARTMENT OF BOTANY

STUDENTS PROJECT DETAILS 2020-21

PG - 2020-21

Sl.No	Reg.No	Name	Project Topic	Guide
1.	CRATMBT001	Ambily K. M	Nutritional, Antioxidant and Phytochemical analysis of two indigenous rice (ORYZA SATIVA L.) varieties of Kerala- Njavara and Kuruva.	Femi K Haneef
2.	CRATMBT002	Ammini C J	Diversity Assessment of Fresh Water Algae in Summer Season: A Case study in Peechi Vazhani Wildlife Sanctuary	Jipcymol P
3.	CRATMBT003	Athira P.K	Preliminary phytochemical screening, Allelopathic effect and a comparative study on Actibacterial activity, Antioxidant potential and Mosquito Larvicidal activity of Mimosa diplotrica C.Wright ex Sauvalle and Sphaeranthus indicus Linn.	Jipcymol P
4.	CRATMBT004	Brigith Veneeza D'silva	Bio synthesis and characterization of Allium sativum and an assessment on it's antibacterial and anthelminthic properties.	Femi K Haneef
5.	CRATMBT005	Fany Joseph	Preliminary phytochemical screening ,antibacterial activity of Menta piperita L	Dr.Sr.Kochuthressia K P
6.	CRATMBT006	Greeshma K M	A Comparative study of the populations of Impatiens cordata Wight (Balsaminaceae)	Dr. Sinjumol Thomas
7.	CRATMBT007	Jesna T J	A comparative study of two populations of Rhinacanthus nusutus (L.) Kurz. (Acanthaceae)	Dr. Sinjumol Thomas
8.	CRATMBT008	Kavya E C	A comparative Account on Cleome viscosa Linn, Cleome rutidosperma DC	Gopika V D
9.	CRATMBT009	Keerthana T P	A study on the water purification activities of selected medicinal plants	Dr.Bindhu.K.B.
10.	CRATMBT010	K.S Silpa	Taxonomy, Ecology and Conservation Status(IUCN) of Diospyros crumenata Thw. (Ebenaceae)	Jipcymol P
11.	CRATMBT011	Liji.K	Comparative study of Antioxidant activity, Antibacterial activity and preliminary phytochemical screening of Anacardium occidentale L. Leaf and gum.	Gopika V D

12.	CRATMBT012	Neena A.S.	Preliminay phytochemical Screening ,Antioxident activityand antibactirial activity of Morinda citrifoli L.	Dr.Sr.Kochuthressia K P
13.	CRATMBT013	Sangeetha Betson	Preliminary Phytochemical Screening And A Comparative Study On Antibacterial And Antioxidant properties Of Moringa oleifera Lam. And Tamarindus indica L.	Jipcymol P
14.	CRATMBT014	Selma Johnson	Preliminary phytochemical and quantitative analysis of latex of Carica papaya, L. and Achras sapota, L.	Dr.Bindhu.K.B.
15.	CRATMBT015	Vaishna Thamban	Preliminary phytochemical and quantitative analysis of Capsicum annum L. and Capsicum fruitescens L.	Dr.Bindhu.K.B.
16.	CRATMBT016	Yardly Mariya Benny	Evaluation of Amylase activity of phytozymes extracted from Syzygium aromaticum L	Dr. Sinjumol Thomas

Webinars

REPORT: Department of Mathematics & Statistics

- In connection with National Statistics day, we organised a National Webinar and Poster making competition with the theme "Statistics in Real Life" on June 29, 2020 We organised two talks: First one was about "Prof. P C Mahalanobis-The Man of National Statistics". Dr. Vijayaraghava Kumar, Professor (Research co-ordination), Head, Department of Agrl. Statistics(retired), Kerala Agricultural University was the resource person. Second talk was on "Build your Career with Statistics". It's about various opportunities of Statistics. Midhun M Madhu, Senior Programmer Analyst, PPD(Pharmaceutical Product Development) was the resource person.More than 200 participants attended the webinar. It included teachers, students and research scholars from various colleges. All participants were provided e-certificates. Also 40+ students from various colleges participated in poster competition. We send e-certificates to all participants and winners. First Prize secured by HoneyAntony from vimala college Thrissur, second prize shared with Ardra Pradeep of Carmel college Mala and Albin shaji of BVM holy cross college Cherpunkal and third prize secured by Murari Mohanan of MSM College kayamkulam

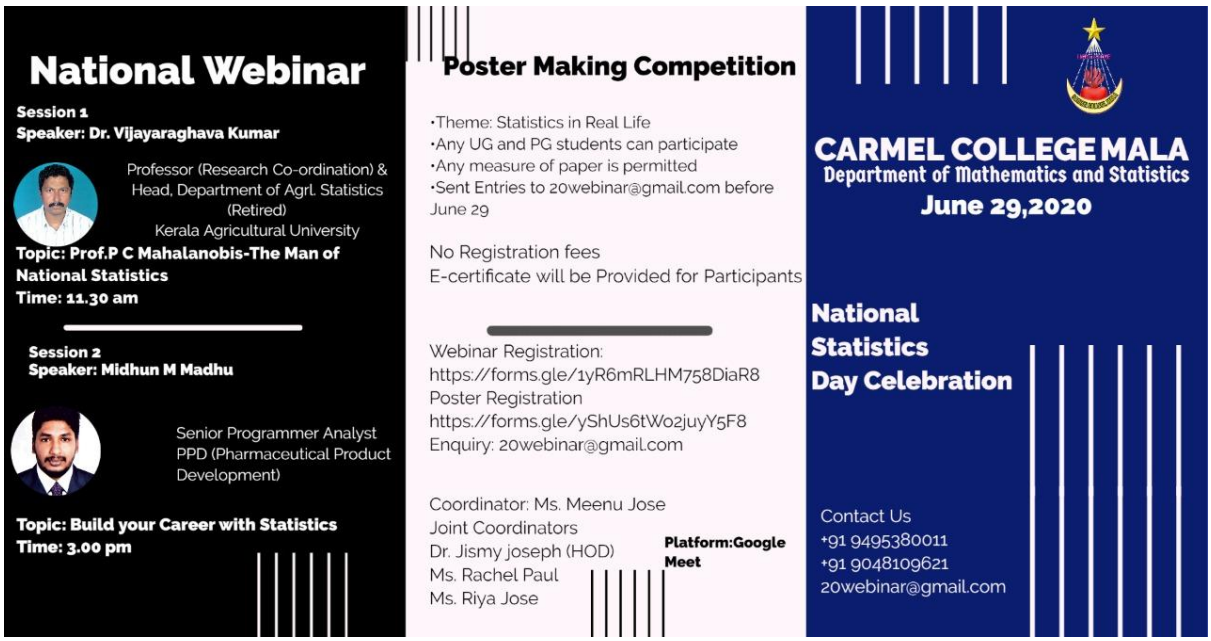
- In connection with Pi Approximation Day,Mathematics Quiz club Conductedan E-Quiz through Google form on July 22, 2020 and send E-certificates to the winners

- We conducted an International Webinar on July 27 and 28, 2020Day one topic was "On the Statistical Assessment of Bioequivalence and Bio similarity". Dr. Thomas Mathew from Mary land University was the resource person. Second day topic was "An Introduction to R Programming". Dr. Sibil Jose, Assistant Professor, St. Georges College, Aruvithura was the resource person. More than 200 participants attended the webinar. It includes teachers, students and research scholars from various colleges (outside India also). We send e-certificates to all participants

- In this Covid fear situation we celebrated Onam through virtual platform Google meet. It was a different experience for both teachers and students. All programmes were organised by our students and they got a chance to explore online platforms. In connection with National Teachers day our students conducted a virtual program "Magister Day 2k20" on September 5, 2020.Our students organised various programmes through online platform and it was a great experience for all of us.

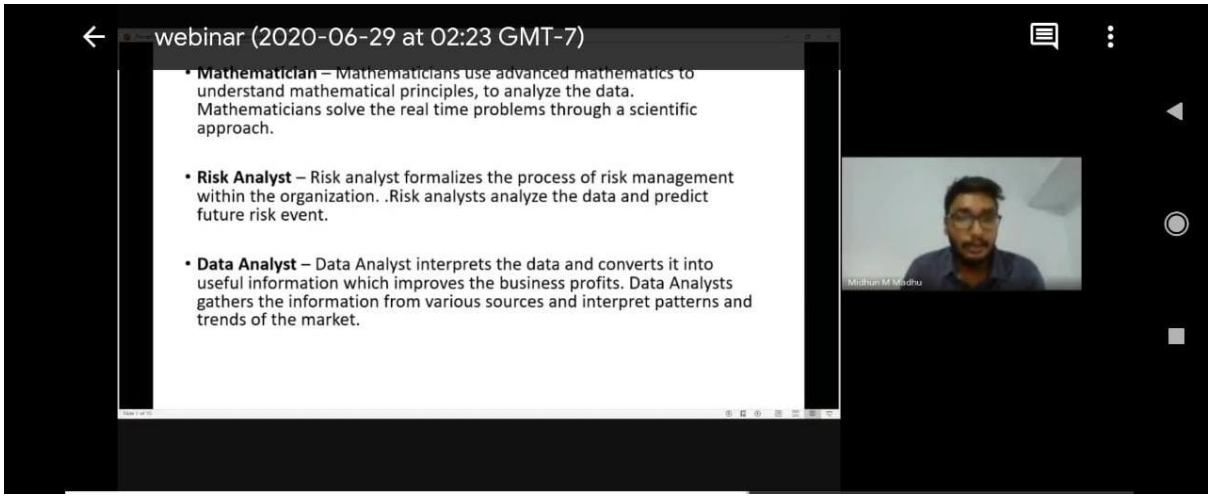
- During the pandemic period Around 105 different MOOC courses were completed by students and 4 were completed by teachers. Around 50 webinars and FDP courses were attended by our faculties.
- Our Department Association inauguration was conducted on November 25, 2020. Fr. John J Chavara, Assistant Professor, Department of Mathematics, St. Berchmans College Changanassery was the resource person
- In connection with National Mathematics Day, Quiz Club Organizedan E-Quiz through Google form on December 22, 2020 and send E-certificates to the winners

National Statistics Day (June 29, 2020)



Section 1: Dr. Vijayaraghava Kumar

Section 2: Midhun M Madhu



DEPARTMENT OF MATHEMATICS AND STATISTICS

CARMEL COLLEGE MALA

National Statistics Day Celebration

Poster Making Competition Winners

1st Prize

Honey Antony
Vimala college Thrissur

Ardra Pradeep
Carmel College Mala

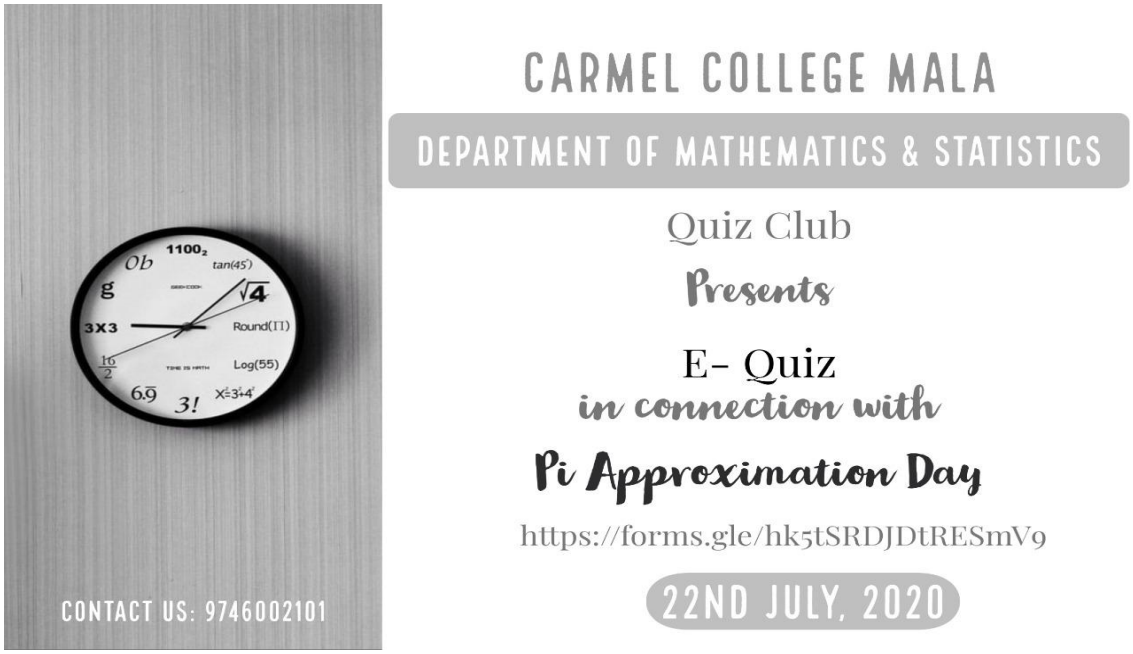
2nd Prize

Albin Saji
BVM Holy cross college cherpunkal

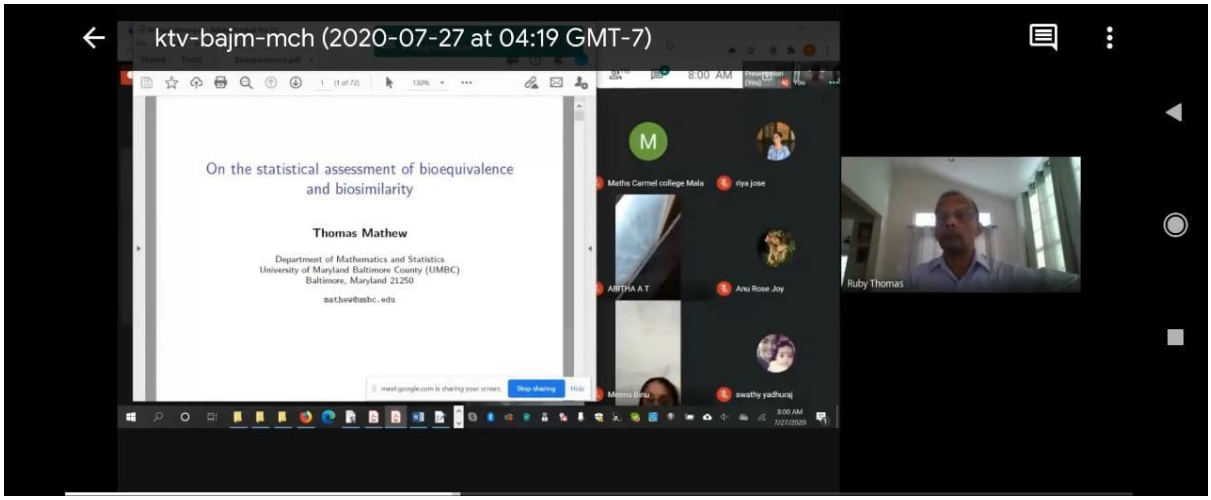
3rd Prize

Murari Mohanan
MSM college kayamkulam

Pi Approximation Day (July 22, 2020)

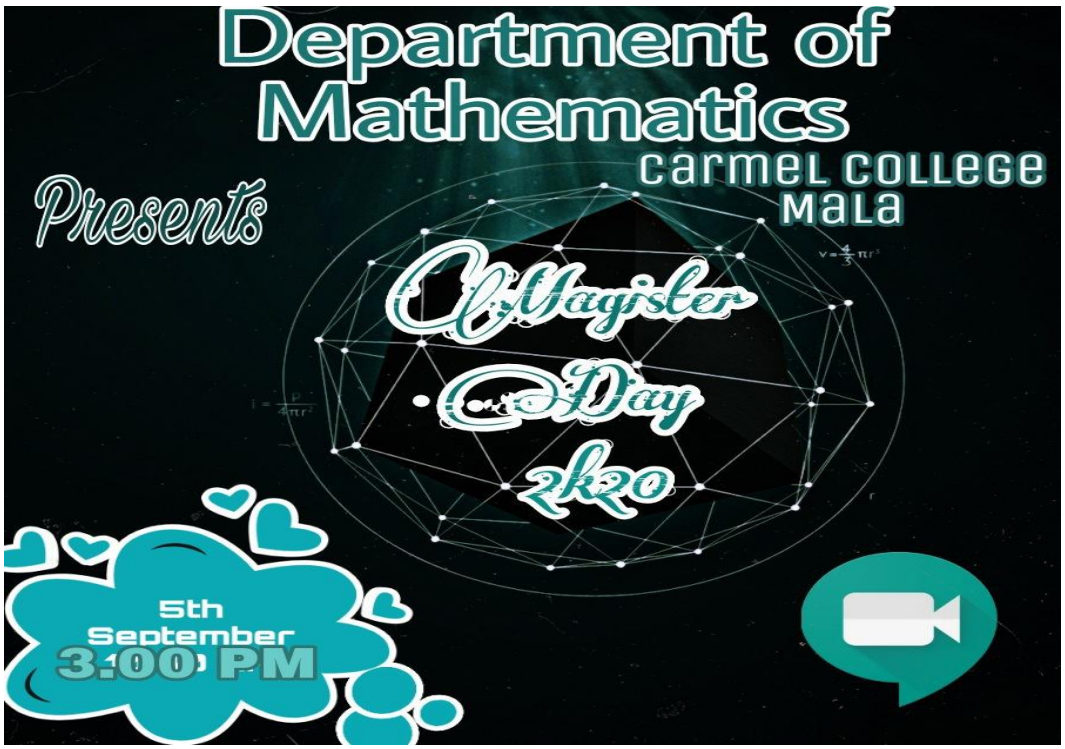


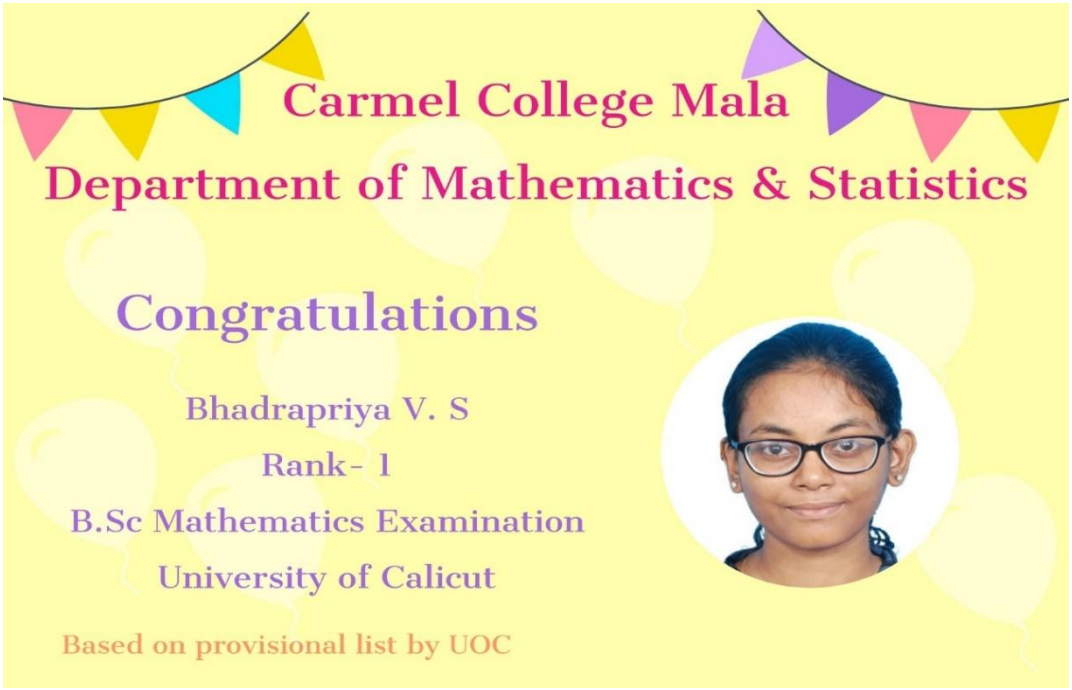
International Webinar



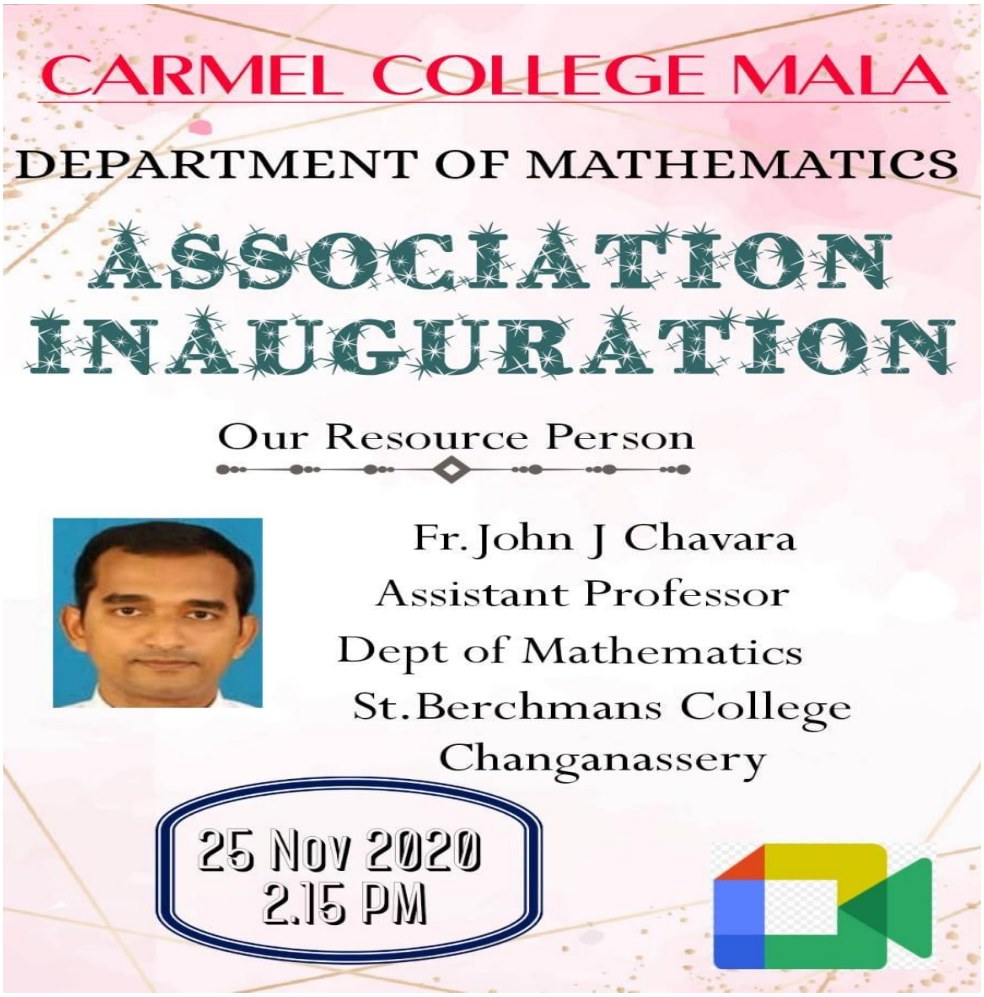
Onam Celebration

Teachers Day





Association Inauguration



National Mathematics Day

CARMEL COLLEGE MALA

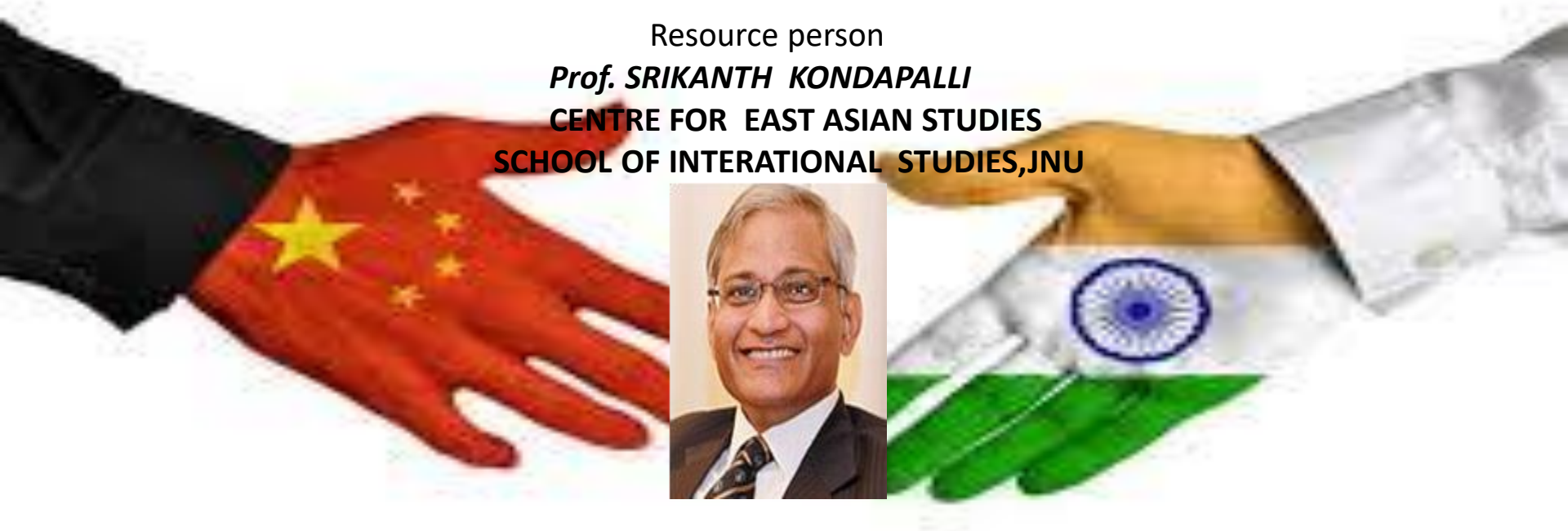
Affiliated to the University of Calicut
Re-Accredited by NAAC with A Grade (Third Cycle)

Ruby Jubilee

DEPARTMENT OF POLITICAL SCIENCE

Cordially invites you to an ***International Webinar*** on

Challenges to National security : India-China relations in the Pandemic era



Resource person

Prof. SRIKANTH KONDAPALLI

CENTRE FOR EAST ASIAN STUDIES

SCHOOL OF INTERATIONAL STUDIES,JNU

On 11th March,2021 at 10.30 a.m. via Google Meet

https://meet.google.com/uxp-xgrr-rah

WEBINAR ON INDIA-CHINA

REPORT- 11/3/2021

The Department of Political Science organised an Internationalwebinar on 'Challenges to National Security: India-China relations in the Pandemic Era' on 11/3/2021 at 10.30 a.m. via Google meet. Prof.SrikanthKondapalli, Centre for East Asian Studies,JawaharLalUniversity was the resource person for the webinar. 54 students from all the three batches were part of the webinar. The session lasted for almost two hours. The resource person presented the topic in a very lucid manner and there were a number of questions put forward by the participants. An active question and answer round was proof of the fact that the participants were able to relate to the theme of the webinar.

CARMEL COLLEGE MALA

(AFFILIATED TO UNIVERSITY OF CALICUT

RE-ACCREDITED BY NAAC WITH A GRADE(3RD CYCLE)

CERTIFICATE OF APPRECIATION

This is to certify that ***Prof. Srikanth Kondapalli***, Centre for East Asian Studies, Jawaharlal University has delivered an invited lecture on '***Challenges to National Security: India-China relations in the Pandemic Era***' as part of an International webinar organised by the Department of Political Science,Carmel College Mala on 11/3/2021.

Ms. Mary Philip
Co-ordinator

Dr. Sr.Licy A.D
PRINCIPAL

PARTICIPANTS LIST- INDIA-CHINA 11/3/2021	
1.	Aparna s Menon
2.	Aryap.a
3.	AATHIRA P. S
4.	Aisha Noushad
5.	Husnanasrin
6.	ShilpaSasi
7.	Merin Bose
8.	Aswini CB
9.	sayiba
10	Harshakrishnan. k
11	sumayyaks
12	Rehana A.A
13	**CHITHRA Tc**
14	**shifananoushad**
15	sanika. o c
16	Anjalysaji
17	Durga. k
18	Jenetjohnson
19	NajeehaSidheek
20	SREETHU M S
21	APARNA MURALI
22	**Remya R**
23	Mizna KM
24	Aryanandhavs
25	*Suryamol TS*
26	**Sneha U.R**
27	Emiya joy
28	Reshmi R
29	Arya PB
30	AyishaamalEm
31	Maneesha p v
32	Suhaila S
33	Nusarath K Nazeem
34	FredeenaSaji
35	Diyadev .p
36	Harishma
37	Binsha. M. B
38	Aparna Rajeev
39	Sreekuttymani
40	Drishya T. S
41	Aswathy P. V
42	Aryanandhaks
43	Anushya
44	SujithaAmeersha
45	SonaSojan
46	Navya
47	Mariya Varghese

48	Aparna Mohan
49	Ashly Antony
50	Bisrija Raj
51	Deepa K.P
52	Gopika Sunil
53	RinuRenny
54	Safa

CARMEL COLLEGE MALA
AFFILIATED TO UNIVERSITY OF CALICUT

DEPARTMENT OF POLITICAL SCIENCE
Most cordially invites you to the Webinar on

TRENDS IN INTERNATIONAL MIGRATION
Resource Person

DR. LIRAR PULIKKALAKATH

Chairman,Centre for Indian Diaspora Studies & Asst.Prof.,

School of International Relations and Politics,M.G.University

25th January, 2021, 12.30 PM,via Google Meet

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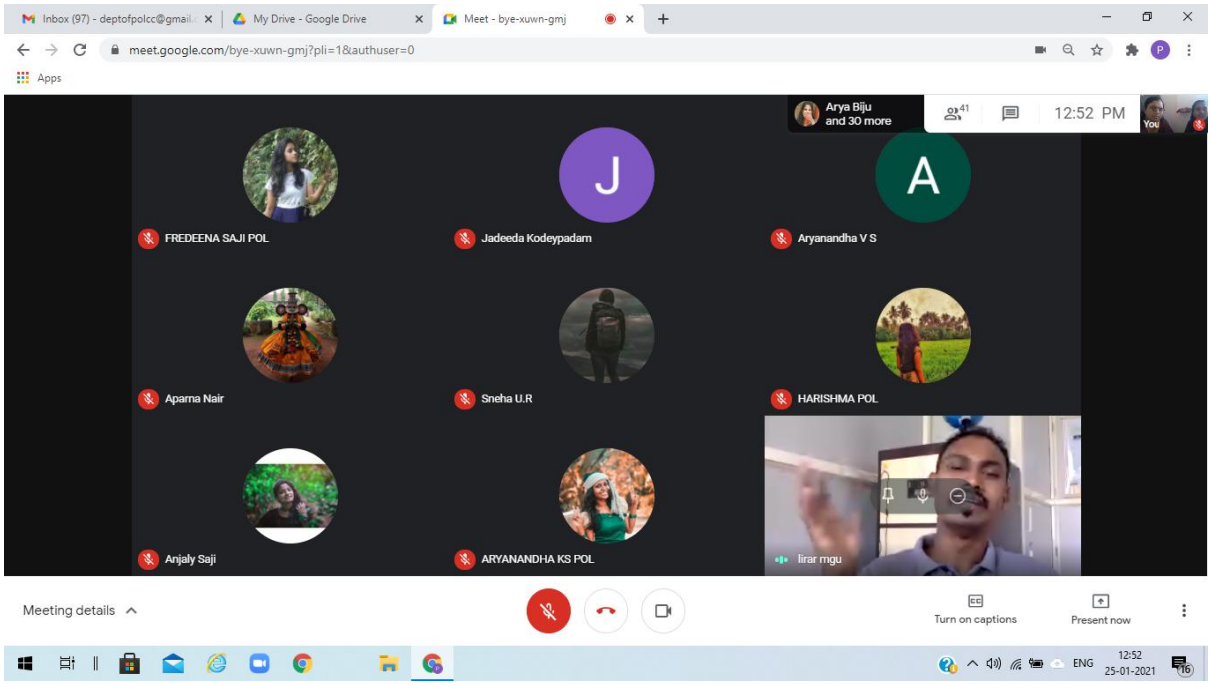
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Jadeeda Kodeypadam
Aryanandha V S
Aparna Nair
Sneha U.R
HARISHMA POL
Anjaly Saji
ARYANANDHA KS POL
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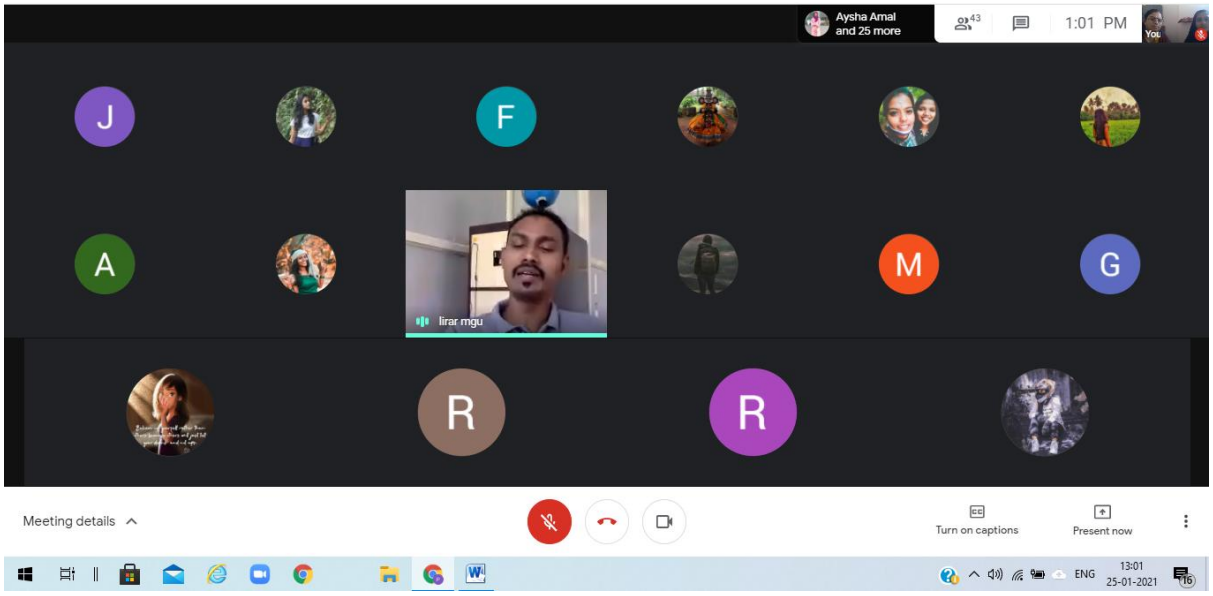
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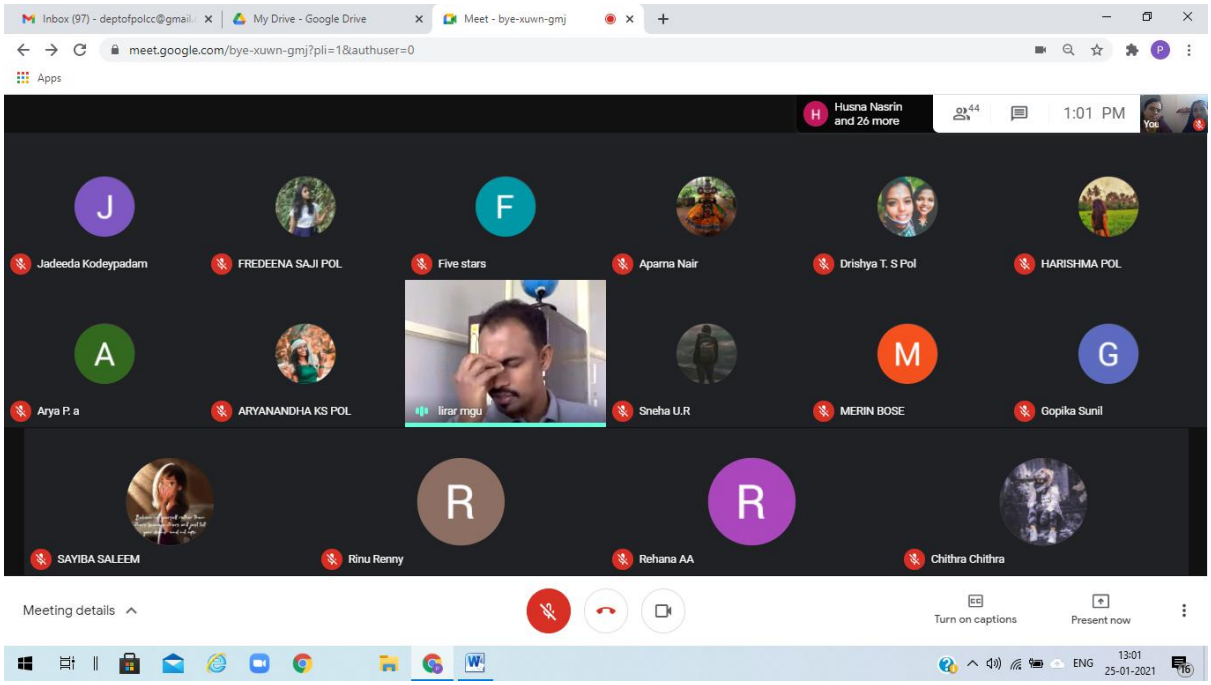
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Sneha U.R
MERIN BOSE
Gopika Sunil
SAYIBA SALEEM
Rinu Renny
Rehana AA
Chithra Chithra
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25-01-2021

Participants	Joined	Left
Ushus Balu	12-16-2020 10:37:19	12-16-2020 10:37:24
aayisha p b	12-16-2020 10:37:19	12-16-2020 10:37:24
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Ahalya M.A.	12-16-2020 10:37:19	12-16-2020 10:37:24
Aisha Noushad	12-16-2020 10:37:19	12-16-2020 10:37:24
Akshaya Cs	12-16-2020 10:37:19	12-16-2020 10:37:24
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Anamika Prakasan	12-16-2020 10:37:19	12-16-2020 10:37:24
Anjaly PA	12-16-2020 10:37:19	12-16-2020 10:37:24
Anju V K	12-16-2020 10:37:19	12-16-2020 10:37:24
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Dr Abhay Vikram Singh (Gandhian and Peace Studies) MGCUB	12-16-2020 10:37:19	12-16-2020 10:37:24
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Sujitha Ameersha POL	12-16-2020 10:37:19	12-16-2020 10:37:24
Sumayya K.S	12-16-2020 10:37:19	12-16-2020 10:37:24
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VINAY KUMAR	12-16-2020 10:37:19	12-16-2020 10:37:24

CARMEL COLLEGE MALA
(AFFILIATED TO UNIVERSITY OF CALICUT
RE-ACCREDITED BY NAAC WITH A GRADE(3RD CYCLE)

DEPARTMENT OF POLITICAL SCIENCE

IN CONNECTION WITH THE RUBY JUBILEE CELEBRATIONS

Is conducting an International Webinar

on

PANDEMIC AND ELECTORAL POLITICS: OUTCOMES AND CHALLENGES

On 16th December, 2020 at 10.30 a.m. ,via Google meet

Resource person

DR.ASLAM KHAN

ADJUNCT PROFESSOR

DEPARTMENT OF GANDHIAN AND PEACE STUDIES

M. G. CENTRAL UNIVERSITY, BIHAR &

Dean

Faculty of Social and Management Sciences

Yobe State University, Nigeria

https://meet.google.com/wur-psrv-qqq

ALL ARE CORDIALLY INVITED TO JOIN US FOR THE SESSION

DEPARTMENT OF POLITICAL SCIENCE

WEBINAR ON INTERNATIONAL MIGRATION

REPORT- 25/1/2021

The Department of Political Science organised a department level webinar on 'Trends in International Migration' on 25/1/2021 at 12.30 p.m. via Google meet. Dr. Lirar Pulikkalakath, Chairman, Centre for Indian Diaspora Studies and Assistant Professor, School of International Relations and Politics, M.G. University was the resource person for the webinar. 50 students from all the three batches were part of the webinar. The session lasted for almost two hours. The resource person presented the topic in a very lucid manner and there were a number of questions put forward by the participants. An active question and answer round was proof of the fact that the participants were able to relate to the theme of the webinar.

Outcome

This webinar helped the participants to understand the concept of migration and the role it plays in the life of global citizens. Emphasis was laid on understanding the changes the pandemic could possibly bring to the economics.

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meet.google.com/wur-psrv-qqq?pli=1&authuser=0

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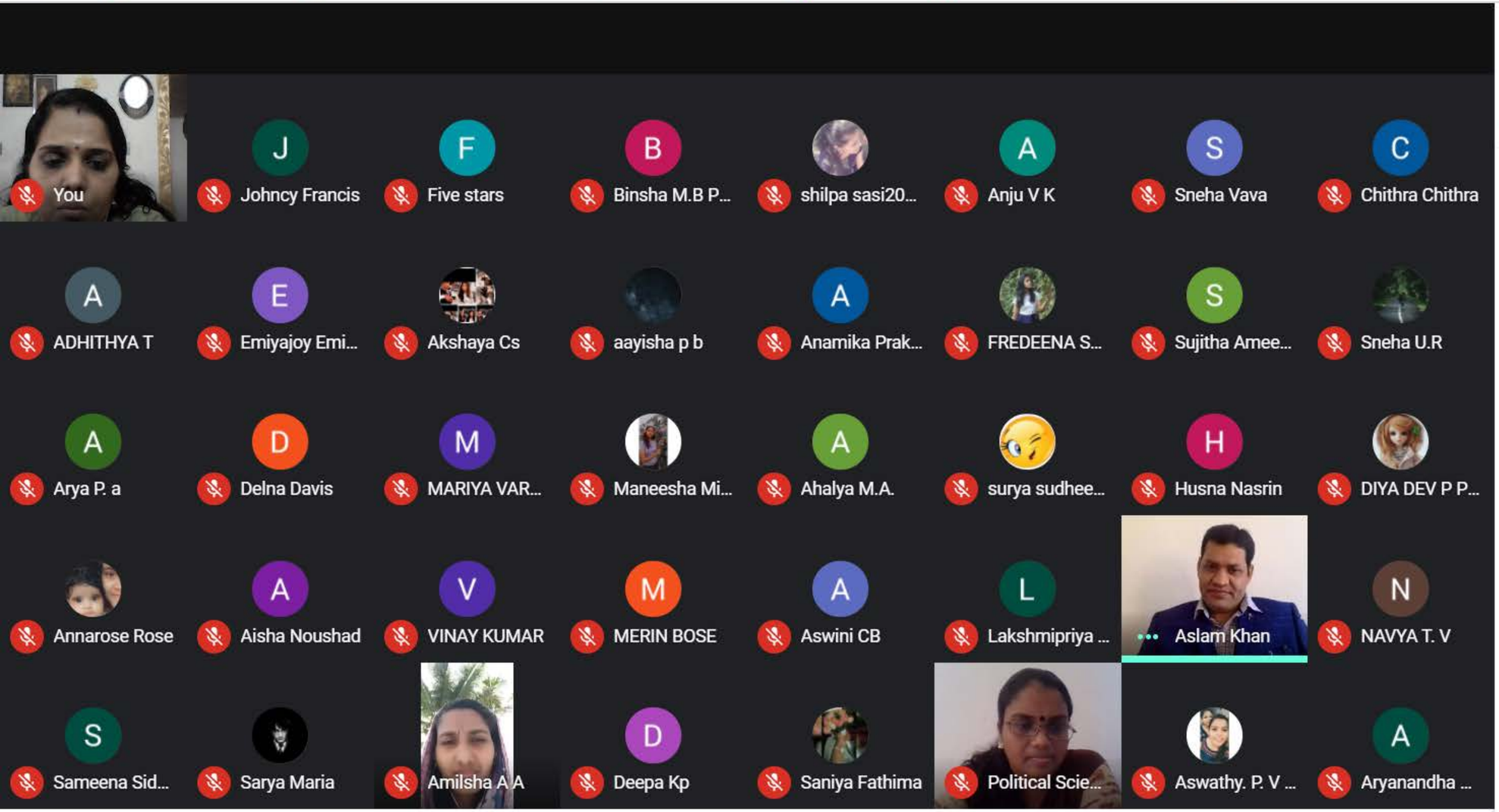

Meeting details

People (83) | Chat

IN CALL

- Ushus Balu (You)
- aayisha p b
- ADHITHYA T
- Ahalya M.A.
- Aisha Noushad
- Akshaya Cs
- alda shaju
- Amilsha A A
- Anamika Prakasan
- Anjaly PA

Meeting details | Turn on captions | Present now

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Timestamp	Email Address	Full Name
1-24-2021 12:42:44	marybphilip@gmail.com	Mary Philip
1-25-2021 13:30:53	aishanoushadalangatt@gmail.com	Aisha Noushad
1-25-2021 13:30:57	deepapradeepkp@gmail.com	Deepa k.p
1-25-2021 13:32:41	mariyavargheseeareth@gmail.com	Mariyavarghese
1-25-2021 13:34:12	sreedeviksseethu247@gmail.com	Sreedevi ks
1-25-2021 13:34:46	aparnanairchembakassery@gmail.com	Aparna Mohan
1-25-2021 13:36:19	ashlypunchaparambil@gmail.com	Ashly Antony
1-25-2021 13:36:33	aparnarajeev952@gmail.com	Aparna Rajeev
1-25-2021 13:39:21	diyadev2000.13@gmail.com	Diya dev.p
1-25-2021 13:44:24	sojansona3669@gmail.com	Sona Sojan
1-25-2021 13:48:29	suharaameersha@gmail.com	Sujitha Ameersha
1-25-2021 16:31:24	ushusmol.e.u@carmelcollegemala.ac.in	USHUS MOL E U
1-25-2021 16:32:32	amilsha0@gmail.com	Amilsha A A
1-25-2021 16:34:29	shajisreethu9@gmail.com	SREETHU M S
1-25-2021 16:35:24	bisrijaraj2001@gmail.com	BISRIJA RAJ K. R
1-25-2021 16:35:25	nusarathnaseem6@gmail.com	Nusarath k Nazeem
1-25-2021 16:36:33	sumayyashajahan251@gmail.com	Sumayya k s
1-25-2021 16:38:13	aryanandha2255@gmail.com	Aryanandha ks
1-25-2021 16:38:21	sanikachandran3@gmail.com	Sanika
1-25-2021 16:39:54	chithrachithra11724@gmail.com	CHITHRA Tc
1-25-2021 16:40:10	sreedeviseethu247@gmail.com	Sreedevi ks
1-25-2021 16:41:15	safa76239@gmail.com	Safa
1-25-2021 16:50:20	najeehanaju19@gmail.com	Najeeha Sidheek
1-25-2021 16:51:40	najeehanaju19@gmail.com	Najeeha Sidheek
1-25-2021 17:07:22	sunilgopika312@gmail.com	Gopika sunil
1-25-2021 17:08:48	sunilgopika312@gmail.com	Gopika sunil
1-25-2021 17:12:08	aparnaabhirami9@gmail.com	APARNA MURALI
1-25-2021 17:13:45	shilpasasi23062002@gmail.com	SHILPA SASI
1-25-2021	aryanandha1156@gmail.com	Aryanandha vs

17:18:48		
1-25-2021 17:21:35	harishmarajanan@gmail.com	HARISHMA
1-25-2021 17:22:33	harishmarajanan@gmail.com	HARISHMA
1-25-2021 17:29:41	amalaysha964@gmail.com	Aysha amal
1-25-2021 17:33:09	Merinbose02@gmail.com	Merin Bose
1-25-2021 17:42:03	aswathyachuszzz212@gmail.com	Aswathy. P. V
1-25-2021 17:43:15	binshachinu@gmail.com	Binsha. M. B
1-25-2021 17:51:24	aparnamenon255@gmail.com	Aparna s menon
1-25-2021 17:51:37	remya963387@gmail.com	Remya R
1-25-2021 17:54:13	jenetjohnsonmadappilly@gmail.com	Jenet Johnson
1-25-2021 18:00:45	rinurenny215@gmail.com	Rinu Renny
1-25-2021 18:08:40	emiyajoy55@gmail.com	Emiya joy
1-25-2021 18:10:38	rehanagafoor15@gmail.com	Rehana.A.A
1-25-2021 18:15:59	aryapa3369@gamil.com	Arya p.a
1-25-2021 18:19:42	miznakmuzammil05@gmail.com	Mizna KM
1-25-2021 18:36:25	suryasudheesh03@gmail.com	Suryamol TS
1-25-2021 19:18:55	harshakrishnan25@gmail.com	HARSHA KRISHNAN. K
1-25-2021 20:06:21	diyadev2000.13@gmail.com	Diya dev.p
1-25-2021 20:16:32	suhailas2003@hmail.com	Suhaila Shereef
2-4-2021 17:43:38	sunilgopika312@gmail.com	Gopika sunil

Department of Sociology, Periyar University, Salem 636 011

Place: Salem
Date: 15/03/2021

From

The Research Supervisor and Guide,
Dr.Sundara Raj. T
Assistant Professor
Department of Sociology,
Periyar University, Salem-11.

To

The Project Director,
Santhwanam SURAKSHA Project
Palarivattom,Kochi
Ernakulam-Dt
Kerala 682025

Respected Sir,

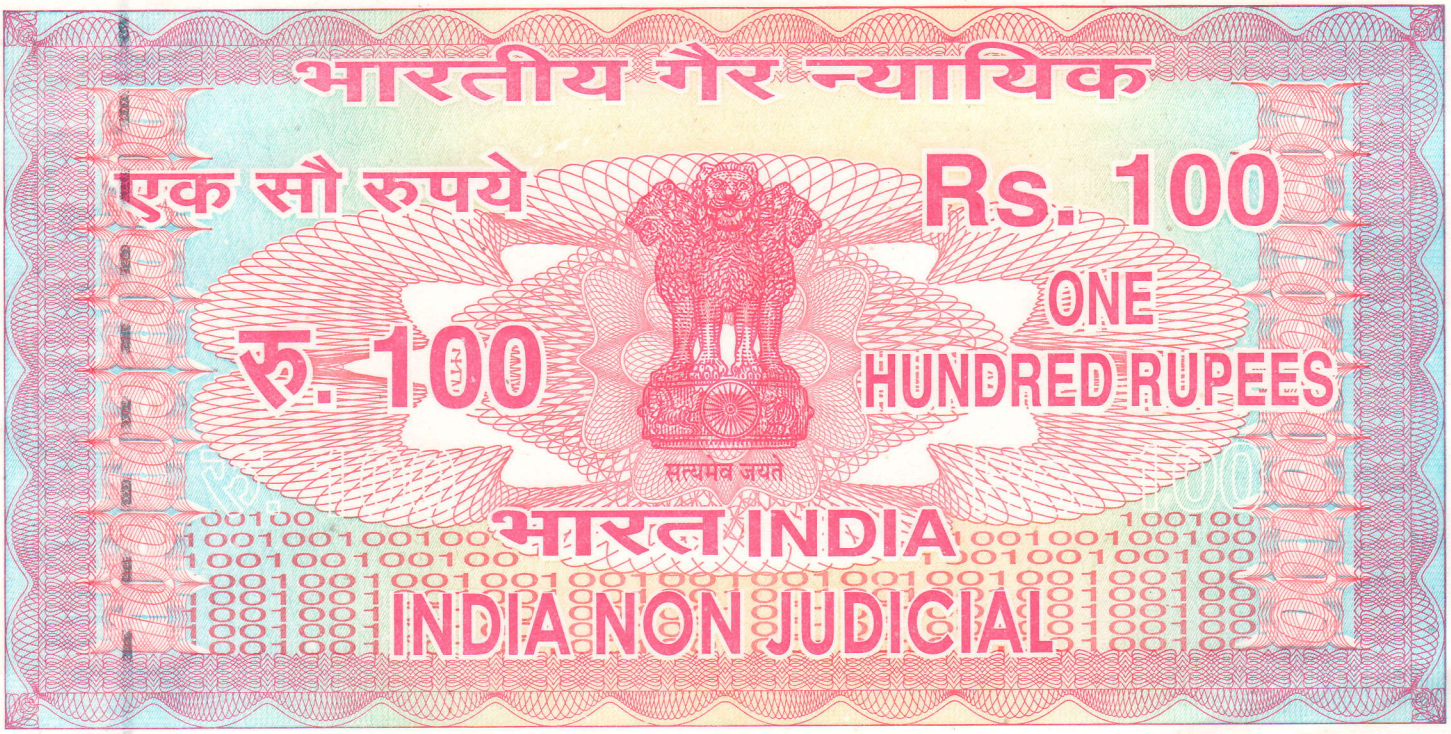
Sub: Requesting permission to collect data for research

This is to certify that Sr.Jisha Chakkunny M is a PhD research scholar under my guidance and supervision in stigma and discrimination among transgender persons in Kerala. As a part of the research work, it is needed to collect the primary data from the transgender individuals.

I request you to kindly help the student and give the permission to the data collection from your organization. I assure you that the purpose of the research work is purely academic.

Thanking You

Yours Sincerely



കേരളം केरल KERALA

CW 491355

MEMORANDUM OF UNDERSTANDING
between
Department of Sociology, Carmel College, Mala
and
Kerala Institute of Local Administration (KILA), Mulankunnathukavu, Thrissur

The Memorandum of Understanding (here in after referred to as MoU) is made on 29/03/2021 between Department of Sociology, Carmel College, Mala (herein after referred to as first party) and Kerala Institute of Local Administration (KILA) (here in after referred to as second party) for conducting Internship, Training Programmes and Certificate Courses for Students of Carmel College, Mala, Thrissur. This MoU is signed by Sr.Jisha Chakkunny M, Head of the Department of Sociology, Carmel College, Mala representing the first party and Dr. Joy Elamon, Director General, Kerala Institute of Local Administration (KILA) representing the second party.

JISHA CHAKKUNNY M
Assistant Professor
Dept. of Sociology
Carmel College, Mala

DEPT. OF SOCIOLOGY * Date * CARMEL COLLEGE MALA

KERALA INSTITUTE OF LOCAL ADMINISTRATION * THRISSUR-680 581 *

Dr. Joy Elamon
DIRECTOR GENERAL
Kerala Institute of Local Administration (KILA)
Mulamgunnathukavu PO, Thrissur-680581, Kerala
Tel: +91-487-2201312

Ref: 7995
23-3-2021

HEAD, DEPARTMENT OF SOCIOLOGY

P.D.PAUL
VENDOR NO: 14
P.O.MALA-6807

SUB TREASURY

22-3-2021

Whereas both parties have agreed to associate and carry out the Internship, Training Programmes and Certificate Courses with the overall objective of enhancing the knowledge, attitude and practices of the students of the Department of Sociology, Carmel College, Mala. Now both parties have agreed to enter into this MoU formulated as per the mutually agreed terms and conditions as mentioned below.

1. To organise Certificate Course on Local Governance to the students of the Department of Sociology, Carmel College, Mala at KILA Campus as per the timetable prepared jointly by both parties. The certificate courses can be either online or offline

    a) The second Party will provide class rooms and basic infrastructure facilities including Library facilities for the participants of the course in KILA.
    b) The selection of students will be done by the first party
    c) The overall coordination of the programme will be done by the first party in consultation with the second party
    d) The resource persons will be identified and arranged by the second party
    e) Certificate will be issued jointly by both parties
2. Internship programme for the students can be either online or offline.
3. Workshops/Training programmes
4. Library for references

Expenditure

All the expenditure related to the certificate course on Local Governance to the students arranged at KILA will be done by the second party. This includes resource person's fee, training materials, stay and food. If the programme is scheduled either at Carmel College, Mala or any other mutually agreed venue, the first/second party will bear the resource person's fee and other expenditure, if any based on mutual discussion and agreement. The programme co-ordination will be done by the first party.

jisha

JISHA CHAKKUNNY M
Assistant Professor
Dept. of Sociology
Carmel College, Mala

DEPT. OF SOCIOLOGY
Date.....
CARMEL COLLEGE MALA

KERALA INSTITUTE OF LOCAL ADMINISTRATION
THRISSUR-680 581

Dr. Joy Elamon
DIRECTOR GENERAL
Kerala Institute of Local Administration (KILA)
Mulamgunnathukavu PO, Thrissur-680581, Kerala
Tel: +91-487-2201312

The first party will provide the infrastructure facilities to KILA for organizing its programmes for Local Governments, based on mutually agreed terms and conditions.

Programme Implementation

Course Structure and Syllabus will be prepared jointly by both the parties. The course will be steered by Course Director - a Faculty Member entrusted by the second party. Coordination of the sessions and maintenance of attendance will be done by the first party. Internal and external evaluation of the programme will be done jointly by both parties.

Signature (First Party)

Sr. Jisha Chakkuny M.
Head of the Department
Sociology
Carmel College, Mala

JISHA CHAKKUNNY M
Assistant Professor
Dept. of Sociology
Carmel College, Mala

DEPT. OF SOCIOLOGY
Date
CARMEL COLLEGE MALA

Signature (Second Party)

Dr. Joy Elamon, Director
Kerala Institute of Local of Administration,
MulankunnathuKavu, Thrissur

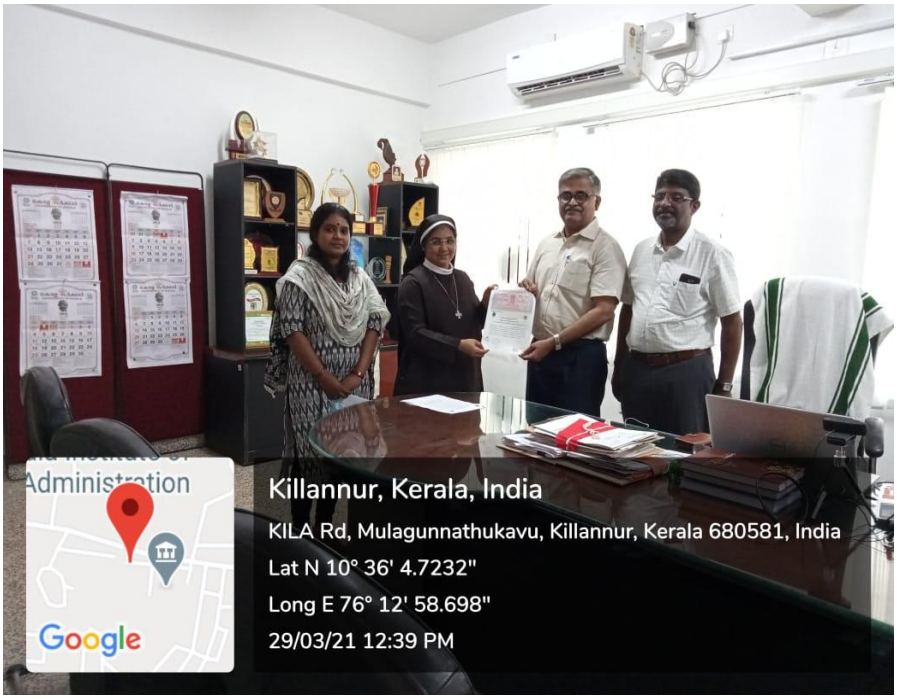
KERALA INSTITUTE OF LOCAL ADMINISTRATION
KILA

REPORT

The Department organizes workshops on research methodology with an intention to orient them on the relevance of undertaking substantial research, particularly for the final UG projects and PG dissertations. The session was handled by Dr.P S Ajith Kumar, Associate Professor, Department of commerce, SAS SNDP Yogam College, Konni - Pathanamthitta and Research Guide, Mahatma Gandhi University, Kottayam , Kerala.The Memorandum of Understanding was made on 29.03.2021 between Department of Sociology, Carmel College, Mala (herein after referred to as first party) and Kerala Institute of Local Administration(KILA) referred to as second party) for conducting Internship, Training Programmes and Certificate Courses for Students, Carmel College, Mala. This MoU was signed by Sr. JishaChakkunny M, Head of the Department of Sociology, Carmel College, Mala representing the first party and Dr.JoyElamon, Director General, Kerala Institute of Local Administration (KILA) representing the second party.


Killannur, Kerala, India
KILA Rd, Mulagunnathukavu, Killannur, Kerala 680581, India
Lat N 10° 36' 4.7232"
Long E 76° 12' 58.698"
29/03/21 12:38 PM
Google


Killannur, Kerala, India
KILA Rd, Mulagunnathukavu, Killannur, Kerala 680581, India
Lat N 10° 36' 4.7232"
Long E 76° 12' 58.698"
29/03/21 12:37 PM
Google


Killannur, Kerala, India
KILA Rd, Mulagunnathukavu, Killannur, Kerala 680581, India
Lat N 10° 36' 4.7232"
Long E 76° 12' 58.698"
29/03/21 12:39 PM
Google

MEMORANDUM OF UNDERSTANDING
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Signature (First Party)

Sr. Jisha Chakkuny M.
Head of the Department
Sociology
Carmel College, Mala

Signature (Second Party)

Dr. Joy Elamon, Director
Kerala Institute of Local of Administration,
MulankunnathuKavu, Thrissur

CARMEL COLLEGE
Nationally Re-Accredited with A Grade (Third Cycle)
MALA – 680 732
Thrissur (Dt), Kerala
Phone: 0480 2890 247, Fax: 0480 2890247
E-mail : carmelcollege@rediffmail.com web: www.carmelcollegemala.ac.in

From

The Principal
Carmel College, Mala.

To

The Director, KILA
Thrissur

Respected Sir,

This is to certify that 16 Students & 2 teachers of the Department of Sociology are interested to visit KILA Thrissur on 29th March 2021, in connection with their training programme. I request you to do the necessary arrangements for the same.

Thank you

Yours faithfully,

CARMEL COLLEGE, MALA
STUDENTS LIST

SL.NO	NAME OF THE STUDENTS	CLASS
1.	Amalu V R	I MA Sociology
2.	Ardhra Hari	,,
3.	Betsy Davis	,,
4.	Julie Saji	,,
5.	Murshidha Thasni N	,,
6.	Nasreen	,,
7.	Silpa Sivan	,,
8.	Varsha M	,,
9.	Athira K K	,,
10.	Lakshmi M A	,,
11.	Sivadharshna Kallatt	,,
12.	Ansha Babu	,,
13.	Saeha K S	,,
14.	Adithya P	,,
15.	Maneesha T M	,,
16.	Varsha E M	,,

TEACHERS LIST

SL .NO	NAME
1.	Jisha Chakkunny M
2.	Ms. Neethu C M