

ACADEMIC ACTIVITIES - 2021 – 2022

DEPARTMENT OF ADVANCED ZOOLOGY AND BIOTECHNOLOGY

RACHEL PHILP WORKSHOP (ONLINE) ON “APPLICATION OF DATA ANALYTICS IN ZOOLOGY RESEARCH USING SPSS” REPORT Preamble

The Department of Advanced Zoology and Biotechnology takes immense pleasure and joy in conducting the **Ms. Rachel Philip Endowment**, the endowment fund which offers opportunities to support a range of programs – Endowment lecture/One day workshop/ Seminar/ Science exhibition year after year to benefit the students and staff of the department. **Ms. Rachel Philip was the former Head of the Department who served the department for 27 years.** Every year a lecture or workshop is organized to perpetuate her memory. This year the Department organized an Online Workshop titled “**Application of Data Analytics in Zoology Research using SPSS**” on **1st July 2021 from 9.00 am – 1.30 pm.** The main objective of this Workshop was to enable students to have an overview of the various Statistical tools available to analyze scientific data and to get hands on training in few well renowned Statistical tests. The Virtual Workshop began at 9.00 am with an Opening Prayer by Dr. Annie Rubens. Dr. Vanitha Williams, Head of the Department welcomed the gathering. Dr. Benita Golda introduced the Speaker, Dr. N. Vishwanathan.

Resource Person

Dr N Viswanathan, Associate Professor in Statistics, Presidency College, Chennai was the resource person who briefed the students about SPSS and gave them hands – on – training of the following Statistical tests and highlighted their significance.

SPSS (Statistical Package for the Social Sciences)

SPSS is a software that helps us to analyze scientific data related with the social science and this data can be used for market research, surveys, data mining, etc. It is a software mainly used by research scientists which enables us to process critical data in simple steps. This helps us to deal with complex and big data as the software contains certain techniques that handles and operates information in an easy manner. These techniques are used to analyze, transform, and produce a characteristic pattern between different data variables and the output can be obtained as a graphical representation which helps the user to understand the result better.

Statistical Tools Descriptive Statistics

The descriptive statistics in SPSS helps to determine the characteristics of a sample data such as its mean, standard deviation, etc. It is especially useful when working with huge numbers of data, making it easier to understand for the users.

T-Test

The T-tests are used to determine if there is a significant difference between the means of two groups, which may be related in certain features and it is a test used for the purpose of hypothesis testing in statistics. There are several different types of t-tests that can be performed:-

ONE SAMPLE T-TEST

The one sample T-test determines whether the mean of a sample data is statistically different from a known or hypothesized value.

INDEPENDENT SAMPLES T-TEST

The independent samples T-test is otherwise known as Two-sample T-test. It compares the means of two independent groups in order to determine whether there is statistical evidence that the associated sample data means are significantly different.

PAIRED SAMPLES T-TEST

The paired samples T-test help us to compare the means between two related groups on the same continuous, dependent variable. This test is used when the data values are paired measurements such as the before- and –after measurements of a data sample.

ONE WAY ANOVA

The one way Anova is used in analysis of variance. It helps to compare and determine whether there are any statistically significant differences between the means of two or more independent groups.

Concluding Remarks

Faculty and students interacted with Dr. N. Vishwanathan at the end of the session to clarify their doubts. The speaker promised to help the students and told them to contact him in case of any queries in the future. The session concluded with a Vote of Thanks by Ms. Sharlene Serafin (III Yr). Thanks to Dr. Evangelin for hosting the event, photo shooting and coordinating the Q & A Session.

**RACHEL PHILIP ENDOWMENT WORKSHOP
ORGANISED BY
DEPARTMENT OF ADVANCED ZOOLOGY
AND BIOTECHNOLOGY**

DATE : 1ST JULY 2021

TIME : 9.00 AM – 1.30 PM



WOMEN'S CHRISTIAN COLLEGE

**DEPARTMENT OF ADVANCED ZOOLOGY
AND BIOTECHNOLOGY**

Cordially invite you to participate in the

**Rachel Philip Endowment Workshop
(Online)**

on

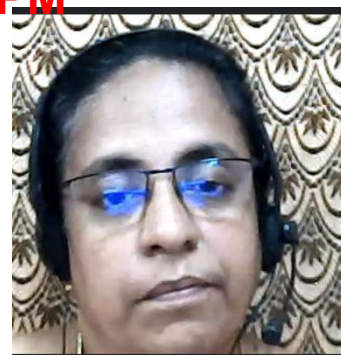
**Application of Data Analytics in Zoology
Research using SPSS**

RESOURCE PERSON

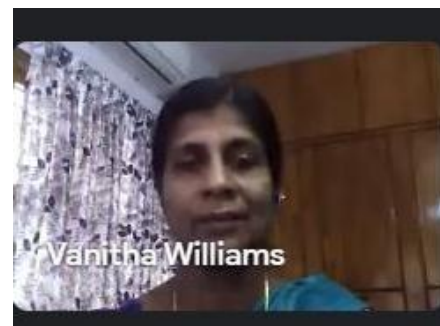
Dr. N. Viswanathan

Associate Professor in Statistics
Presidency College, Chennai

**DATE: 1ST JULY, 2021
TIME: 9:00 AM TO 1:30 PM**



**Opening Prayer
Dr. Annie Rubens**



**Welcome Address
Dr. Vanitha Williams**



**Introducing the Speaker
Dr. Benita Golda**

WORKSH

Speaker

Dr. N. Vishwanathan
Associate Professor
Dept. of Statistics
Presidency College
Chennai



Viswanathan N is presenting

Untitled - Paint

STATISTICS

1. Collection
2. Analyse
3. Conclusion

STATISTICS/MEASURE

Descriptive: Diagrams & Graphs, Tables

Inferential: Estimation, Testing

Testing: Point, Interval

Formula: $\sum (X_i - \bar{X})^2 / n$

Mean / Average: $\bar{X} = \frac{x_1 + x_2 + \dots + x_n}{n}$

SD = \sqrt{Var}

Example: $N = 50, n = 10$
 Scores: $(75, 62, 41, \dots, 92, 20)$
 Mean: $\bar{X} = 82 \rightarrow$ Good
 Median: $45 \rightarrow$ Below Avg

Sciences 1: A (90), B (70)

Sciences 2: A (70), B (90)

Maths: $\bar{X}_A = 50, \bar{X}_B = 80$

9:56 AM | ruq-rvqk-guq

Viswanathan N is presenting

Types of Data.pdf - Adobe Reader

Types of Data & Measurement Scales: Nominal, Ordinal, Interval and Ratio

CSc 238 Fall 2014

There are four measurement scales (or types of data): nominal, ordinal, interval and ratio. These are simply ways to categorize different types of variables. This topic is usually discussed in the context of academic teaching and less often in the "real world." If you are brushing up on this concept for a statistics test, thank a psychologist researcher named Stanley Stevens for coming up with these terms. These four measurement scales (nominal, ordinal, interval, and ratio) are best understood with example, as you'll see below.

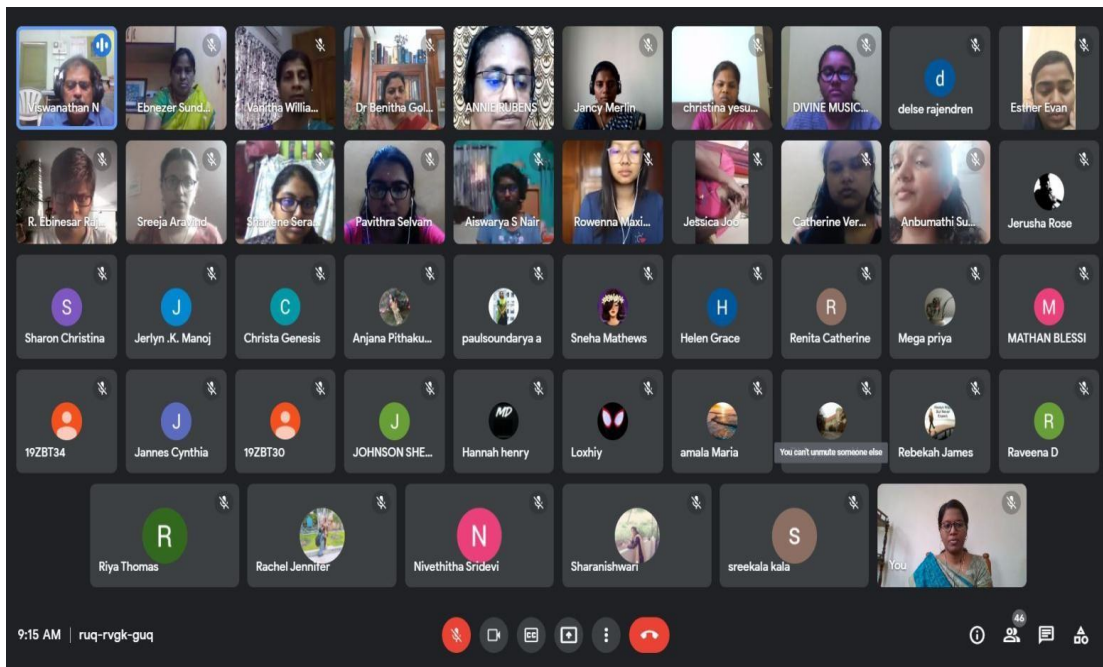
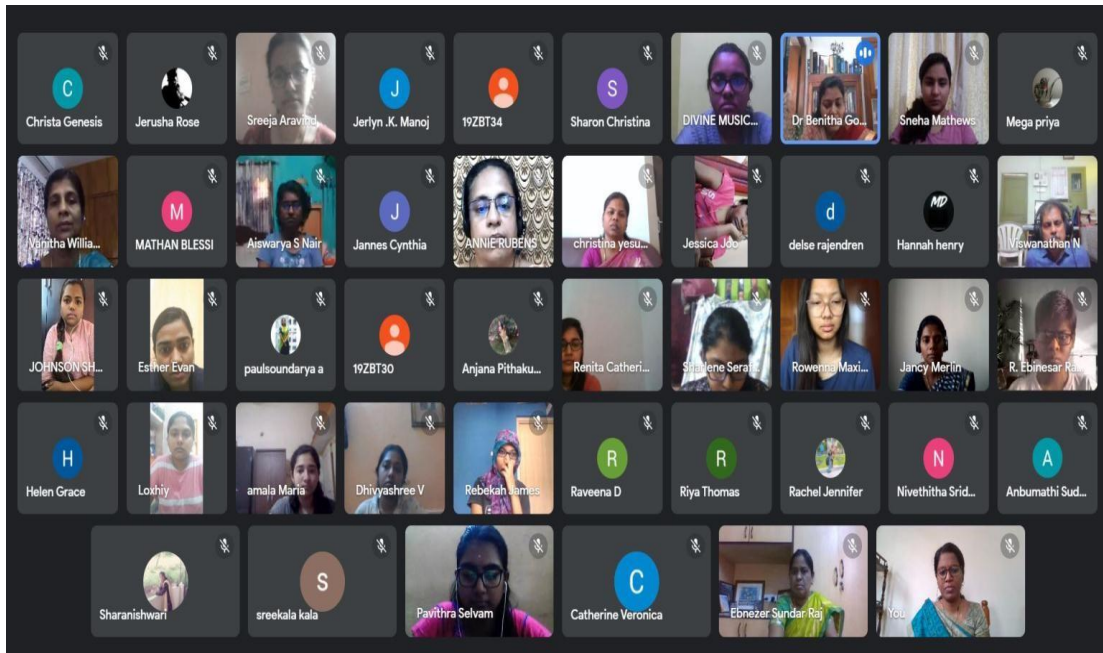
Nominal Let's start with the easiest one to understand. Nominal scales are used for labeling variables, without any quantitative value. "Nominal" scales could simply be called "labels." Here are some examples, below. Notice that all of these scales are mutually exclusive (no overlap) and none of them have any numerical significance. A good way to remember all of this is that "nominal" sounds a lot like "name" and nominal scales are kind of like "names" or labels.

<p>What is your gender?</p> <p><input type="radio"/> M - Male</p> <p><input type="radio"/> F - Female</p>	<p>What is your hair color?</p> <p><input type="radio"/> 1 - Brown</p> <p><input type="radio"/> 2 - Black</p> <p><input type="radio"/> 3 - Blonde</p> <p><input type="radio"/> 4 - Gray</p> <p><input type="radio"/> 5 - Other</p>	<p>Where do you live?</p> <p><input type="radio"/> A - North of the equator</p> <p><input type="radio"/> B - South of the equator</p> <p><input type="radio"/> C - Neither: In the international space station</p>
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Examples of Nominal Scales

10:06 AM | ruq-rvqk-guq

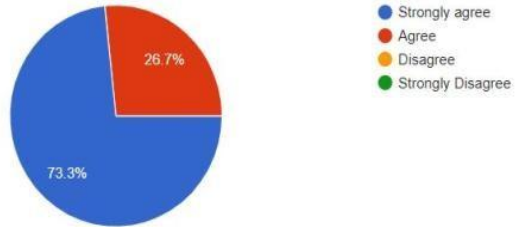
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FEEDBACK

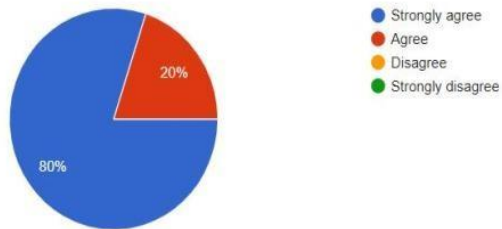
Workshop objectives were clearly stated and met

45 responses



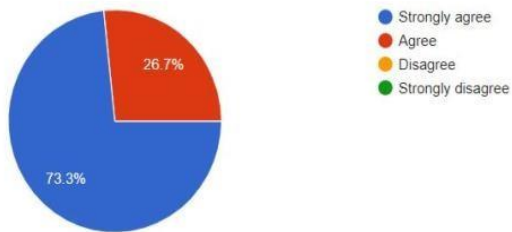
The workshop was well organized

45 responses



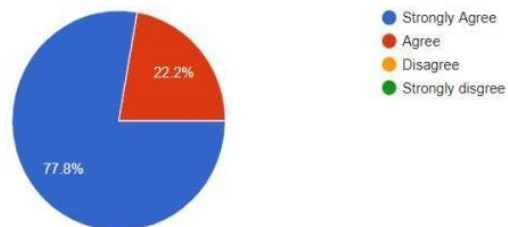
The information and/or skills presented were relevant and useful

45 responses



The presentation by the resource person was clear and easy to follow

45 responses



TRAINING AND PROJECT SESSION UNDER MANAV – THE HUMAN ATLAS INITIATIVE
Date : 05/08/2021 ORGANIZED BY THE DEPARTMENT OF ADVANCED ZOOLOGY AND
BIOTECHNOLOGY, WOMEN’S CHRISTIAN COLLEGE, CHENNAI

PREAMBLE

“**MANAV – THE HUMAN ATLAS**” is a project funded by the **Department of Biotechnology, Government of India and co-funded by Persistent Company**. This project primarily focuses at creating a database network of all tissues in the human body from the available scientific literature. The programme involves scientific skill development for annotation, science outreach along with handling big data. This Webinar was conducted by the Department of Advanced Zoology and Biotechnology and Internal Quality Assurance Cell of Women’s Christian College. Around 297 student participants attended this Webinar. Dr. Shoba Leslie, the IQAC Coordinator welcomed the gathering and the speaker of the day. The Faculty representatives who attended the Webinar were Dr. Gowri Ramesh (Dean of Research – Shift I, Dr. Jeba Jecintha (Dean of Research – Shift II, Ms. Monica Ebnezer (Assistant Professor, Department of Plant Biology and Plant Biotechnology) and Dr. Anchana Devi (Assistant Professor, PG & Research Department of Biotechnology) It was open to students, researchers and faculty members. **The Webinar began with an Invocation by Ms. Daphne (Music Coordinator) and Ms. Faith (Student Coordinator) of SHOFAR, the Gospel Music Band of Women’s Christian College. Dr. Evangeline (Faculty member) introduced the Speaker and compered the event.**

OBJECTIVES OF MANAV

The objectives of MANAV are to aim at the creation of a Human Atlas assimilating all available macro and micro – level information from scientific literature and public databases. It aims to provide mechanic knowledge ranging from inter-organ dependencies to intra-organ, tissue, cell and sub-cellular level biological interactions. It helps to identify the real gaps in current biological knowledge and areas in which future experiments can be focused to create a complete and fully accurate representation.

SPEAKER : Dr. ANUPAMA

Dr. Anupma Harshal W. (Ph.D.)

CONSULTANT (Science Communication and Public Engagement)

Manav- Human Atlas Initiative, IISER, Pune

Mob: 9820164415

Team MANAV : <https://manav.gov.in/>

Dr. Anupma Harshal Wadavlikar is an educator with teaching expertise of 17 years and a certified trainer for STEM teachers training on Research-Based Pedagogy. She is a UGC-CSIR Scholar and has accomplished her Doctoral thesis from Hindustan Lever Research Centre in collaboration with Topiwala National Medical College & B. Y. L. Nair Hospital, Mumbai. She adds to her credit 28 research projects with her Undergraduate students at Kishinchand Chellaram College, Mumbai University of which 11 have received funding from the Mumbai University, U.G.C., and other private labs. During her tenure, she was an articulate member of the grant applications for STAR DBT Funding, NAAC, and has been the coordinator of the Science Honors Program, an Innovative UG Research initiative at the College. She served as the convener of the Inter-Collegiate Research Scholars Meet and was on the editorial board of the inhouse research journal SRUJAN for several years. She has contributed to several regional RBPT workshops (funded by DBT / DST and CoESME, IISER Pune) across the country, as a subject expert /observer. She was associated as a resource person and content development in pedagogy workshops in regional language Marathi for science teachers from government schools of Maharashtra, conducted by CoESME, IISER Pune under the Rashtriya Madhyamik Shikshan Abhiyan (RMSA). She is a reviewer for several International Journals and has also reviewed a few books on Pedagogy. She has contributed to the coursework for M.B.A. program in Waste Management, WASH & Nutrition by MGNCRE, MHRD, and to a book on Foldscope and its applications. Her co-scholastic interests include Kathak dance in which she has received recognition and awards. She is a recipient of the Indo-US Foldscope Grant, funded by the Ministry of Science and Technology, and presently engaged with Project Manav-Human Atlas Initiative at IISER, Pune. As a Consultant for Science Communication and Public Engagement she is involved with onboarding, conducting activities for student retention, upskilling thus motivating them to practice higher-level critical thinking skills.

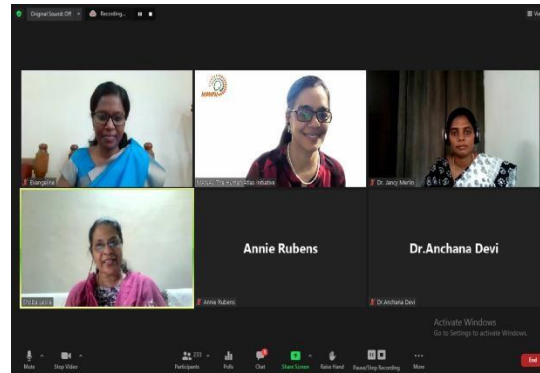
SESSION

Dr. Anupama started her session by highlighting few major classes of scientific literature i.e., Research articles, Review articles, commentary, Medical case report, to name a few. Adding on to that she also mentioned that review articles are not just clubs of research articles but they are opinion pieces and that they tell us how a reviewer views all the current literature in the field.

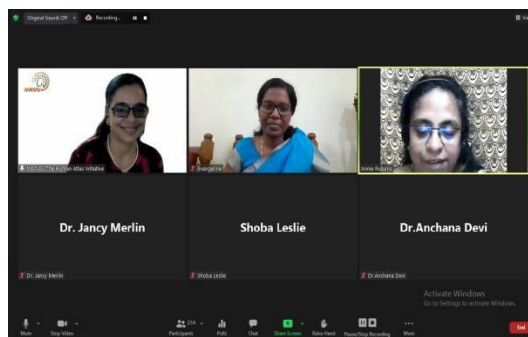
Research articles on the other hand are of 8 main sub-units, i.e., Title, Abstract, Introduction Materials and Methods, Results, Discussion, Conclusion and References. The one question that many may ponder over is „How does one pick the right paper?“ „How does one choose?“. In order to help students understand, Dr. Anupama taught how one can read a research paper in just 30 minutes. Title – 1 minute, Abstract – 10 minutes, highlight as you read (annotation), Quickly read the results – 10 minutes and Quickly read the conclusion – 9 minutes and then decide whether to read the whole paper or not. Throughout the webinar polls were conducted which consisted of question on peer review, curation and the content delivered which helped the participants to engage with the speaker. The event concluded with a Vote of Thanks proposed by Dr. Annie Rubens (Assistant Professor).



**INVOCATION BY SHOFAR TEAM
THE GATHERING**



DR. SHOBA LESLIE ADDRESSING



VOTE OF THANKS : DR. ANNIE RUBENS

SESSION SNIPPETS

Research Article

Review Article

OPINION PIECE

How this person (or persons) view all the current literature in the field

Activate Windows
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Title

© 2018. Published by The Company of Biologists Ltd | Journal of Cell Science (2018) 131, jcs215986. doi:10.1042/215986

RESEARCH ARTICLE

Cell-matrix adhesion controls Golgi organization and function through Arf1 activation in anchorage-dependent cells

Vibha Singh, Chaitanya Erady and Nagaraj Balasubramanian*

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Hold at 37 degrees

37°

Not quite...
Get it right with sight

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Results

Q: What do you expect to see in results ??
ANS: Different kind of data.

Q: What kind of data ?
ANS: Depends on the kind of study. The data may vary.

Q: Should I be able to understand all of the data ?
ANS: NO

Q: What if I do not understand the data?
ANS: Read more papers. That's what scientists do!!!

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Schematic

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    graph TD
      subgraph Non-adherent
        A[Integrin] --> B[Arf1 inactivation (HS1-) dependent]
        B --> C[Golgi Disorganized]
        C --> D[Promotes Golgi Function]
      end
      subgraph Re-adherent
        E[Integrin] --> F[Arf1 Activation]
        F --> G[Dynamin]
        G --> H[Golgi Organized]
        H --> I[Basal Golgi Function]
      end
      J[Proposed model for adhesion-dependent Golgi organization. Schematic shows integrin-mediated adhesion prominently uses Arf1 GEF BIG1/2 (p115 GEF1) to activate Arf1, which recruits the microtubule motor protein Dyx1c1 to control Golgi organization and function.]
    
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Chat

Request participants to type your questions in the chat box in case if you have any.

From: SRAJEEZ SONDURAY, As Engineer 04:37 AM

Thank you team!

From: Anuprakash to Everyone 04:38 AM

Thanks for the informative session.

Who can use your message? Recording On

To: Meek and parents

Type message here...

- Students interested in starting a "MANAV" team at their institute/college/university
- Faculty interested in starting a "MANAV" team at their institute/college/university
- Become a "Reviewer" for "MANAV" (Post-doctoral fellows, PhD (Fourth and fifth year students))
- Become an "Expert Reviewer" for MANAV (Senior/ Retired - Scientists/Academicians/Doctors)

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@ManavAtlas



Manav Human Atlas



Manav Human Atlas



Manav.atlas

You are screen sharing | Stop Share

Mute | Stop Video | Participants (243) | Chat | Polls | New Share | Pause Share | Annotate | Remote Control | More

© 2019 MANAV Hum | Search the web and Windows | 17:01 | 04-08-2021

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**"TRAINING AND PROJECT AWARENESS" SESSION UNDER
PROJECT MANAV - THE HUMAN ATLAS INITIATIVE**



HOW TO READ SCIENTIFIC LITERATURE & Introduction to MANAV-The Human Atlas Initiative

For registration: <https://forms.gle/uuHXZcPXyRp6LHbh8>

DR. ANUPMA HARSHAL W.
CONSULTANT
(SCIENCE COMMUNICATION AND PUBLIC ENGAGEMENT)
MANAV-HUMAN ATLAS INITIATIVE, IISER, PUNE

Date: 04.08.2021

Time: 4.00 pm

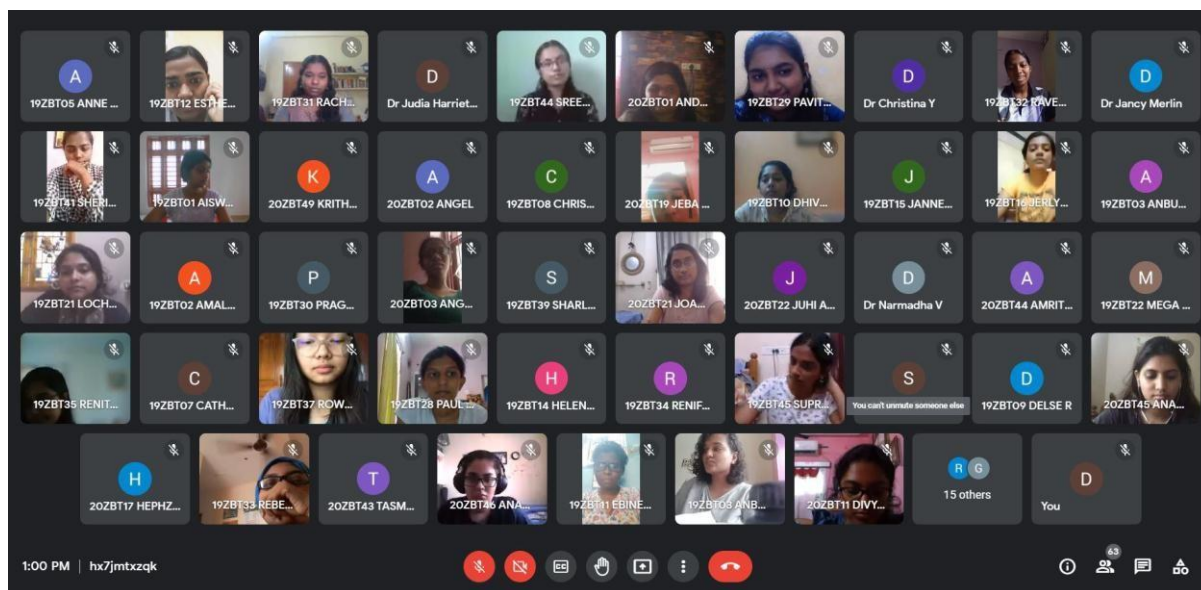
Organized by
Department of Advanced Zoology & Biotechnology
&
Internal Quality Assurance Cell
Women's Christian College, Chennai 600006

Target audience - Students/Teachers/ Researchers

All participants will receive a downloadable certificate on successful completion of post session online QUIZ.

WORLD MOSQUITO DAY – A REPORT

World Mosquito Day is celebrated worldwide on the 20th of August every year. It dates back to 1897 when Dr Sir Ronald Ross discovered that female Anopheline mosquitoes transmits malaria. In honor of this day, the Bio Image Club of the Department of Advanced Zoology and Biotechnology, Women's Christian College conducted an activity for the students on 19th August, 2021. A short Kahoot quiz on mosquitoes was conducted online. The faster they answer the question, the more points they would earn. There were around 20 questions in total. Dr. Benitha Golda, the Bioimage Club Staff Coordinator conducted this event. Thanks to Ms. Sharlene Serafin, the Student Coordinator of the club who guided us through the event.

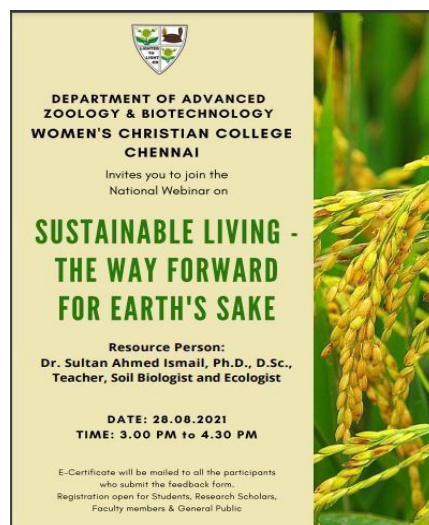


SUSUTAINABLE LIVING - THE WAY FORWARD FOR EARTH'S SAKE
NATIONAL WEBINAR DATE : 28/08/21

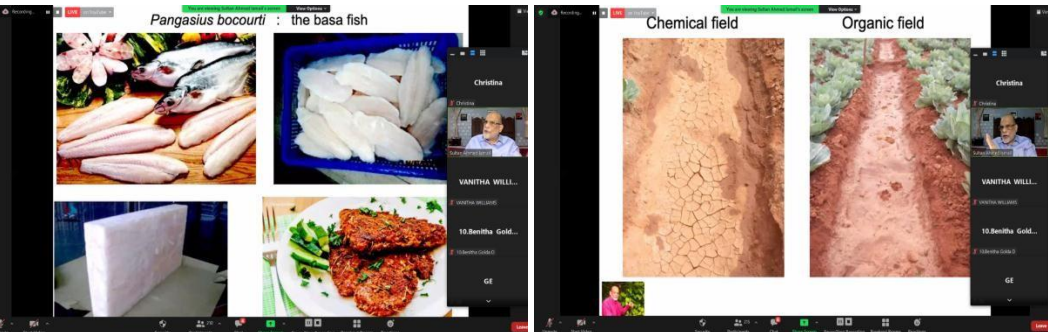
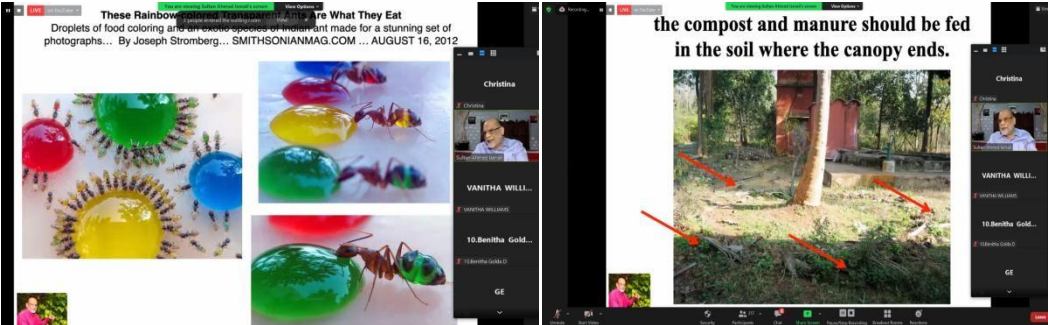
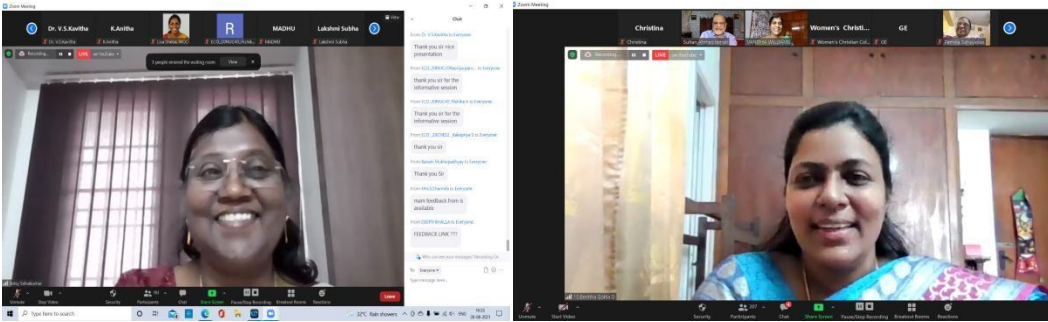
The department of Advanced Zoology and Biotechnology organized its first National Webinar titled “Sustainable Living - the Way Forward for Earth’s Sake” on 28th August, 2021. Around 210 participants which comprises of Students and faculty members from Arts and Science Colleges in India participated in this Webinar. Our guest speaker was Dr. Sultan Ahmed Ismail. Dr. Ismail is an Indian soil biologist and ecologist. He works with the Department of Science and Technology, Government of India, in developing a module on vermicomposting as a sustainable ecological practice. He is also the managing director of Eco science Research Foundation.

The speaker started his talk by giving the audience a picture of the present day scenario wherein a lot of anthropogenic changes are carried out to suffice the needs of man which in turn is irreplaceably harming the environment. Broiler chicken is hormonally treated to mature faster, while people have forgotten about naatu kozhi. Basa fish is cultured in fresh water and is then chemically treated to become white which is then frozen and thawed. This is served as fish fingers which are quite a delicacy. Even though all these taste extremely good, that was not how nature made them. We humans have modified and manipulated them to fulfill our needs. As we continue to do so, we are slowly losing out on natural benefits.

Vermicompost is the product or process of composting using worms, such as red wigglers, white worms, and other earthworms to create a heterogeneous mixture of decomposing vegetable or food waste, bedding material, and vermicast. Vermicast, also called worm castings, worm humus or worm manure, is the end-product of the breakdown of organic matter by an earthworm. These castings contain reduced levels of contaminants and a higher saturation of nutrients when compared to organic materials before vermicomposting. Thus vermicompost can be an excellent, nutrient-rich organic fertilizer and soil conditioner. This process of producing vermicompost is called vermicomposting. The process may look slow but it is extremely beneficial. Restoration of nature is impossible but rehabilitation is possible and that needs to be understood by many! Dr. Ismail kept us all hooked with his casual, strong and realistic speech. It was a great eye opener for many of us !!



SNIPPETS



VERMICOMPOSTING

at State Institute for Rural Development and Panchayat Raj Maraimalainagar

at Muniguda Odisha for tribal families Debjcet Sarangi

Participants: Christina, VANITHA WILLI..., 10.Benitha Gold...

This screenshot shows a Zoom meeting with a video player. The video displays a circular vermicomposting bin filled with dark soil and worms. A man in a light blue shirt is shown in a field, bending over to work with the soil. A group of people, including women in colorful saris, are standing behind him. The Zoom interface includes a list of participants on the right and a toolbar at the bottom.

ring or nutrition garden

Participants: Christina, VANITHA WILLI..., 10.Benitha Gold...

This screenshot shows a Zoom meeting with a video player. The video shows a circular garden bed with a raised edge, filled with dark soil and some green plants. A yellow arrow points to the center of the garden, and a green arrow points to the edge. The Zoom interface includes a list of participants on the right and a toolbar at the bottom.

how much soil for a plant

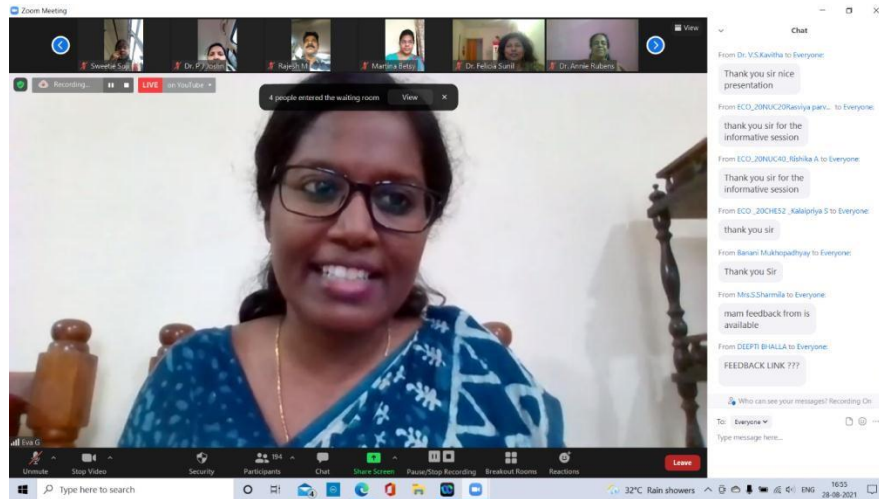
holes at base pebbles cocohusk + soil + compost

about 4 inches

Participants: Christina, VANITHA WILLI..., 10.Benitha Gold...

This screenshot shows a Zoom meeting with a video player. The video shows two images: a rectangular tray filled with soil and plants, and a small plant in a woven basket. A ruler is placed next to the plant, indicating its height. The Zoom interface includes a list of participants on the right and a toolbar at the bottom.

Q & A SESSION AND FEEDBACK



COMBAT PCOS INSIDE AND OUT DATE 30.09.2021

“**Combat PCOS Inside and Out**”, was an illuminating invited talk organized by the Department of Advanced Zoology and Biotechnology on 30th September via Zoom platform for the final year students. The guest speaker was Dr. Samundi Shankari, founder and Chief Consultant of Srishti Fertility Centre. She is a fertility specialist, Gynaecologist, Obstetrician, Reproductive Endocrinologist (Infertility), MBBS, MD – Obstetrics and Gynaecology, DGO, Diploma in Anesthesiology. She delivered a brief explanation of what PCOS is, its causes and symptoms.

Content of the Talk

Polycystic Ovary Syndrome (PCOS), is a multifactorial and polygenic condition characterized by excessive androgen production by the ovaries. It mainly affects women and girls of reproductive age. The main causes of PCOS are abnormal pituitary function and steroidogenesis, persistence of physiological hyper-insulinemia, environmental factors, changing lifestyle of modern society (like overeating, intake of junk food etc.), genetic factors and lack of physical activity.

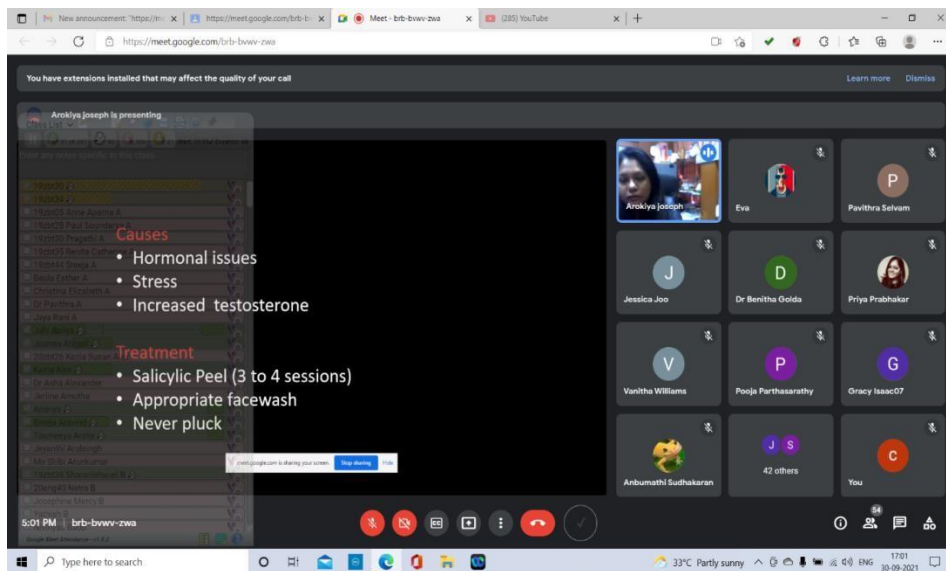
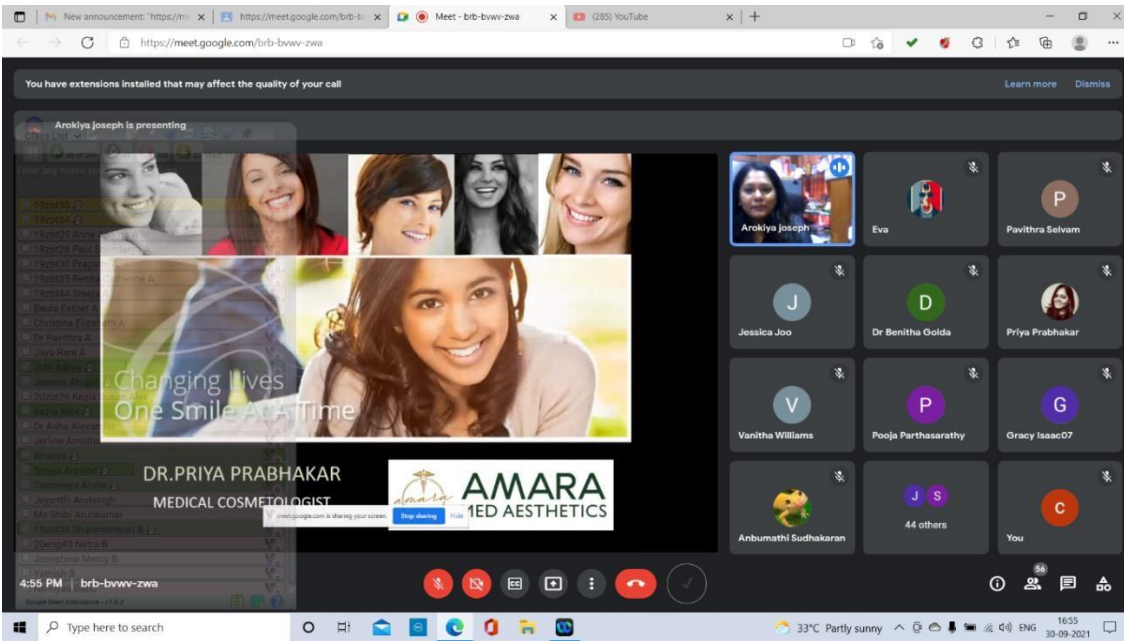
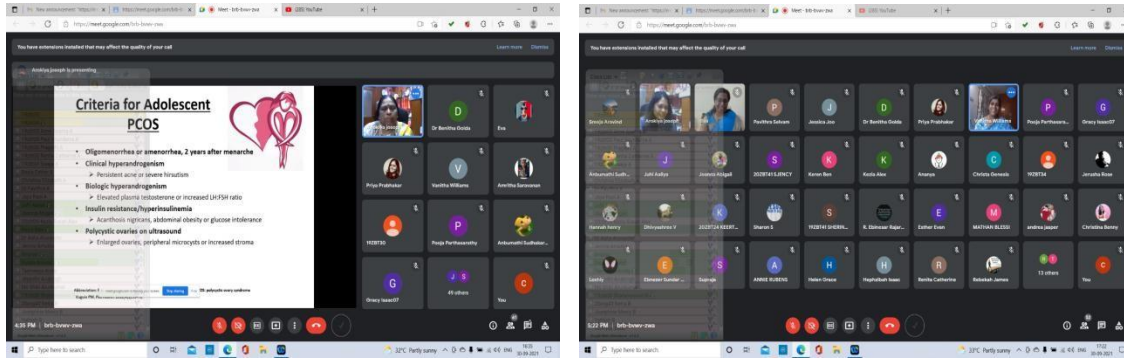
Symptoms of PCOS includes infertility, missed or heavy periods, weight gain or problem in losing weight, excess facial or body hair, hair loss, skin condition, ovarian cysts, fatigue, mood swings, anxiety and depression, high cholesterol and blood pressure and sleep apnea. The longterm effects of PCOS include fertility issues, pregnancy complications, obstructive sleep apnea syndrome, endometrial cancer, diabetes mellitus and indirect cardiac risk.

Yoga poses such as Cobbler's pose, cobra pose, lotus pose, supported bridge pose and legs up the wall pose helps to increase fertility. Intake of complex carbohydrates such as rotis, quinoa, ragi, barley, banana, millets could be very helpful for those with PCOS. The intake of good fat such as coconut, fish, nuts, avocado and oil such as extra virgin olive oil, gingelly oil, and cold pressed coconut oil is also essential. There are anti inflammatory foods such as ginger, garlic, green tea, cloves, papaya, black pepper, omega-3 fatty acids and so on which helps fight PCOS.

Criteria for adolescent PCOS includes Oligomenorrhea or amenorrhea, 2yrs after menarche, clinical hyperandrogenism, biologic hyperandrogenism, insulin resistance/hyper-insulinemia, polycystic ovaries on ultrasound. PCOS treatment includes treatment of Oligomenorrhea or amenorrhea, management of hirsutism and acne, reducing the far-reaching consequences of insulin resistance and glucose intolerance. Complications associated with PCOS includes obesity, premature birth, infertility, liver inflammation, metabolic syndrome, type 2 diabetes, sleep apnea, uterine bleeding, endometrial cancer, depression and anxiety and so on.

PCOS has become very common nowadays and women and girls need to be taught how to manage the condition. The department of Advanced Zoology and Biotechnology is grateful to Dr. Samundi Shankari for giving us an insight into managing PCOS and the struggles associated with it.

SNIPPETS



International Webinar on “Awareness towards Peace Education”

Date : 1st & 2nd April 2022 Virtual Platform : Zoom

The Department of Advanced Zoology and Biotechnology conducted an **International Webinar** on **1st & 2nd April 2022** on “**Awareness towards Peace Education**”. The main objective of this Webinar was to create an awareness among students and faculty members on the importance of Peace Education. The **Inauguration** of the Webinar began at **5.00 pm** with an **Opening Prayer** by **Dr. Vanitha Williams**, Head of the Department of Advanced Zoology and Biotechnology as initial technical glitches were encountered in livestreaming the **Invocation Song** by **SHOFAR**, the Student’s Gospel Music Band of Women’s Christian College. Around **329 participants from Arts and Science Colleges in India and 4 delegates from abroad** participated in the webinar. Dr. Evangelin G, Assistant Professor, Department of Advanced Zoology and Biotechnology, the Master of Ceremony of the event, welcomed the **Principal Dr. Lilian I Jasper** who greeted the participants and appreciated the department for selecting such a topic for the Webinar as Peace was and is the need of the hour. **Dr. Vanitha Williams**, Head, Department of Advanced Zoology and Biotechnology welcomed the participants. The Inaugural Address was delivered by **Dr. Christine Vertucci, Director, Mindanao Peacebuilding Institute Foundation, Inc. Philippines**. She reiterated the point that Peace was the need of the hour and the Academic community can create an impact for change in the society through such initiatives. The Keynote address was delivered by **Dr. Angela Wai Ching Wong, Vice President for Programs, United Board for Christian Higher Education in Asia**. She commended the department and highlighted the fact that Inner Peace has a rippling effect and transcends to Family, Society and Nation at large. **Dr. Judia Harriet Sumathy**, Facilitator of the Webinar and Assistant Professor Department of Advanced Zoology and Biotechnology proposed the Vote of Thanks. The **First lecture session** started at **6.00 pm**. The **first lecture** was by **Jonathan E. Rudy**, Senior Consultant, Peacebuilding Global Mindanao Peacebuilding Institute, Philippines on “**Deep Connections : Why Peace Education’s Time Has Come**”. This was followed by the **Second lecture** by **Maria Ida Giguinto** Core facilitator, Mindanao Peacebuilding Institute, Philippines on “**My Philosophy of Peace Education - No one should be excluded from learning about Peace**”. After the lectures there was a **Q & A session** where questions were put forth by the participants to both the speakers and was answered well by both of them. The first lecture session ended at **7.10 pm**.

The second day of the Webinar began at **9.50** am with an **Opening Prayer** by **Dr. Annie Rubens**, Assistant Professor Department of Advanced Zoology and Biotechnology. The **Second lecture session** started at **10.00 am**. The **Third Lecture** on “**Challenges in designing a Curriculum for Peace Studies**” was delivered by **Rev. John Prasad**, Director, Centre for Peace Studies and Dialogue, Madras Christian College, India. He explained in detail the challenges which every faculty member encounter in designing a curriculum for Peace studies and suggested useful methods to overcome these hurdles and accomplish the task. The **fourth lecture** was by **Ms. Jenee Peter**, Director, Centre for Peace Studies and Dialogue, Union Christian College, Aluva, Kerala on “**Centre for Peace Studies and Dialogue – My Experiences**”. It was a very open and personal talk in which she shared her experiences of setting up this centre in her institution, the struggles she faced and the help of the management and her colleagues in establishing it. The **fifth** and the **last lecture** for the day was on “**Role of Science in Peace Education – An Overview**” by **Dr. V. Judia Harriet Sumathy**, Facilitator of the Webinar and Assistant Professor Department of Advanced Zoology and Biotechnology. She highlighted the pivotal role Physical and Biological Sciences can play in promoting Peace Education. A very **interactive and vibrant Q & A session** was facilitated by **Dr. Evangelin** after the end of the three lectures. This was followed by the **Valedictory session**. The

Invocation song was rendered by **SHOFAR**, the Student’s Gospel Music Band of Women’s Christian College. **Rev. Dr. Spurgeon**, Director of South Asia Programs, United Board for Christian Higher Education in Asia delivered the **Valedictory address**. He cited many relevant examples and instances where Peace was replaced by hatred and war and appreciated the department for conducting such an event to bring about an awareness among the teaching community on peace education. Valuable and insightful feedback were received from the participants. A moment of joy and laughter was the **Group Snap time**. The Webinar concluded with a **Vote of thanks** by **Dr. V. Judia Harriet Sumathy**. She highlighted the short term and long term goal of the department.

1. Role of Science in Peace Education

- To be passed in the Board of Studies of the Department of Advanced Zoology and Biotechnology in 2023

- To be offered as a Non – Major Elective to II Year UG Graduates in 3rd/4th Semester) ➤ 1 credit
- 2 hours per cycle (30 hours / semester)
- Assessed for 50 marks
- 2 Continuous Assessment 20 marks each
- 1 Assignment for 10 marks (A Case Study Analysis)

2. Peace Club

- To start this Peace Club after successful completion of 2 batches of offering this NME Course to students (tentatively 2025).

3. Center for Peace Studies

- After assessing the functioning and the progress of the Peace Club for 3 years, a Center for Peace Studies to be established in College (tentatively 2028).

We would like to thank our **Principal, Dr. Lilian I Jasper** for all her support in this endeavor. A special word of thanks to the **Speakers, Dignitaries, United Board Team and our students.**

RESUME OF DIGNITARIES AND SPEAKERS Wai Ching Angela Wong, PhD

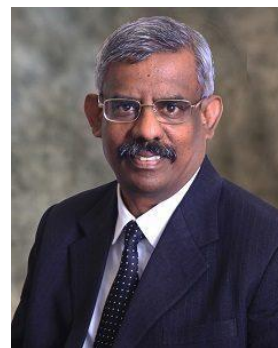
Vice President for Programs



Wai Ching Wong lives and grew up in Hong Kong and received her doctorate from the University of Chicago. She was a long-time faculty member of The Chinese University of Hong Kong, serving the Department of Cultural and Religious Studies, and headed the Graduate Divisions of Cultural Studies and Gender Studies, the Gender Research Centre, and many academic programs. Ecumenically committed, she was a member of the board of trustees of the United Board (2002-2012) and the Presidium of Christian Conference of Asia (2000-2005); the chairperson (1995-1999) and regional secretary (1993-1995) of the World Student Christian Federation; and co-moderator of the Congress of Asian Theologians (2000-2004). As an academic, she has published widely in Chinese and English on topics of religion, gender, and culture in Asia.

Maher Spurgeon, PhD

Consultant, Director of South Asia Programs



Maher Spurgeon has worked with the United Board as a regional program consultant for the South Asia region since 2015. In this role, he works with colleges and universities of South Asia to promote whole person education by visiting, coaching and guiding them, and enabling them to apply for grants from the United Board. Before joining the United Board, he worked as an associate professor of philosophy and the chaplain of Madras Christian College for more than 20 years. He has an MA in economics and an MA in philosophy and religion from Madurai Kamaraj University;

MTh in pastoral theology from the University of Wales, UK; and MPhil and PhD from the University of Madras.

Christine Vertucci Director, Mindanao Peacebuilding Institute Foundation, Inc. Philippines



Ms. Christine Vertucci graduated from the University of San Francisco in the US with a Bachelor of Arts in Sociology and a Doctor of Jurisprudence in Law. She practiced law at a Legal Aid Society where she was the head of the Family Law Unit representing poor and abused women who were seeking a new life. In 1978 she left for Hong Kong where she served as the Co-Director of the Asia Monitor Resource Center, which is still operating. While in Hong Kong, she joined the Kwun Tung Inquiry Service (KTIS), a Chinese voluntary organization where she was one of three foreigners working with about 25 Chinese students and teachers who were all activists. She was involved with her KTIS colleagues in demonstrations, sit-ins, and other protests on behalf of the marginalized population in Hong Kong. This was one of the milestones in her life where she engaged in social justice activities with her Chinese friends and deepened her love and appreciation for Asian societies and cultures.

It was here in Hong Kong where Christine's commitment to the Philippines started. She volunteered with the Resource Center for Philippine Concerns (RCPC) that was established in Hong Kong in the mid-1970s as an international solidarity center on behalf of human rights in the Philippines. This engagement brought her to Davao City in 1984 where she worked as an international volunteer with non-governmental organizations. She co-founded the Philippine International Forum, a network that supported international solidarity on behalf of the poor and oppressed in the Philippines. Christine also served with Mennonite Central Committee as its country representative in the Philippines for six years.

In 2002, Christine left for Timor-Leste to serve with the Commission for Reception, Truth and Reconciliation in East Timor as its donor liaison and with Timorese organizations in a capacity building role. This started a long-term relationship with a Timorese colleague with whom she and others have supported community development projects in the mountainous region of Baucau Sub-

District. To this day, Christine is still supporting a middle school and a secondary school in the mountains of Baucau Sub-District.

In 2009, Christine returned to Davao City to lead the institutionalization of the Mindanao Peacebuilding Institute which she co-founded with Filipino colleagues in 2000 and where she is currently the Director. Christine is a seasoned, detail-oriented and highly committed mentor, manager, and administrator offering 40 years of experience in international development work in areas of peacebuilding, human rights advocacy, popular education and community development in various countries of Asia. She is an adopted daughter of Asia!

Jonathan Rudy Senior Consultant, Peacebuilding Global Mindanao Peace building Institute, Philippines



Jonathan “Jon” E. Rudy is a global educator on the topics of human security, peacebuilding, conflict transformation and nonviolence. With more than 35 years of work in 30 countries in Asia and Africa, Jon’s recent training energies have gone toward human security and civil society. He is a 20-year veteran facilitator at the Mindanao Peacebuilding Institute, and teaches regularly at the University of Hargeisa, Somaliland. Jon served as Peacemaker-in-Residence at Elizabeth town College’s Center for Global Understanding and Peacemaking from 2012-2019. He was a Senior Fellow for Human Security at the Alliance for Peacebuilding and a Senior Fellow at the Social Enterprise Service Group as a subject-matter expert in peacebuilding. He is a Fulbright Specialist, having supported the peace studies program at the Symbiosis School for Liberal Arts in Pune, India and is on the roster of UNDP ExpRes preapproved consultants in conflict resolution and peacebuilding. Jon is a core member of the Global Partners for the Prevention of Armed Conflict (GPPAC) Improving Practices Working Group.

Jon is a 2001 graduate of Eastern Mennonite Seminary and University in the USA with a MA in Religion and a Graduate Certificate in Conflict Transformation. He earned a Teaching for Higher

Education Certificate from Temple University and has a BA in International Development, an AA in Industrial Arts and Minor in Communications from Bethel College in the USA.

Since Covid-19 Jon has facilitated Zoom-based peace and justice trainings. Before the global shut down, he facilitated workshops at the Initiatives of Change, Caux Forum on Just Governance for Human Security in Switzerland.

Maria Ida Giguiento Core facilitator, Mindanao Peacebuilding Institute, Philippines



Core facilitator at the Mindanao Peacebuilding Institute since its inception (2000 - 2017, short medical break, 2020 - 2022).

Senior Peacebuilding Training Officer of Catholic Relief Services 2005-2018 (especially for high level, middle level actors in civil society, government and non-state actors).

Senior Peacebuilding Training Officer of the Grassroots Peacebuilding Training Course (for community-based leaders - village, traditional, religious leaders, village school educators and administrators, state and nonstate village actors).

Member, core of international facilitators on Human Security

Recipient: Tanenbaum Peacemaker in Action Award in 2015

CRS Peacebuilding Program Manager

Worked in East Timor before, during and right after they gained their independence from Indonesia (1999-2005, TLPI from 2007-2010) .

Worked on repatriation and reconciliation between East Timorese and Indonesians, among East Timorese divided by the violence

Worked as Director of Notre Dame University Peace Education Center, teaching Peace Education in the undergra. (1995-1999 and Graduate level, 2007 - 2010)

Worked as Coordinator for the Justice and Peace Ministry of the Archdiocese of Cotabato.

Studies:

Masters in Peace and Development, (lacks written thesis)

Certificate programs: Eastern Mennonite University, Summer Peacebuilding Institute, Virginia, USA (courses: Conflict Resolution Skills; Mediation Between Persons and Groups in Conflict; Religion as a Source of Conflict and as a Resource for Peace.)

Certificate Program: Maryknoll School of Peacebuilding, New York, USA (courses: From Violence to Wholeness; Caring for the Peacebuilder - Arts and Peacebuilding)

Certificate Program: Mindanao Peacebuilding Institute, Davao City, Philippines (courses: Trauma Healing; Peace Education)

Certificate Program: Notre Dame University (under Dr. Toh Swee Hin and Dr. Virginia Cawagas. Courses: 6 Petals of Peace Education, Environmental Peace)

Graduate and State Board Passer: Bachelor of Science in Medical Technology



Rev. John Prasad Director,
Center for Peace Studies Academic Co-ordinator, PG Diploma in Christian Studies IACS, Madras Christian College Tambaram, Chennai. 600059

Education:

1. B.A University of Indore
2. B.D Union Biblical Seminary (Serampore)
3. M.Th (missiology) Union Biblical Seminary (Serampore)
4. Ph.D (Intercultural Studies / Missiology) Trinity International University, Deerfield, IL, USA

Ministry Experience

- Cross-cultural missionary with St Thomas Evangelical Church in Chattisgarh 1979-1980 and 1983-1988.
- Ordained minister of St Thomas Evangelical Church from 1983
- Served as Vicar of the following parishes of St Thomas Evangelical Church at different periods from 1983. (simultaneously served multiple parishes many times) Dalli-Rajhara Parish (Chattisgarh), Bhilai Parish, Jabalpur Parish, Calcutta Parish, New Delhi Parish, Jhalap mission field (Chattisgarh), Jaipur Parish, Tonk Parish (Rajasthan), Bombay VT Parish, Bombay Ulhasnagar Parish, Bangalore Parish, Urapakkam Parish (Chennai).

Official Responsibilities held

- Director, Christian Fellowship and Service Center, Dondi, (Chattisgarh)
- Trained missionaries at the above institution (CFSC, Dondi)
- Vice Chairman, Pocket Testament League, India
- Various responsibilities in the St. Thomas Evangelical Church of India from time to time
- Member, Executive Committee of Hindi Belt Mission of St Thomas Evangelical Church
- Principal, Jubilee Memorial Bible College, Urapakkam, Chennai
- Academic coordinator, PG Diploma in Christian Studies, Institute for Advanced Christian Studies, Madras Christian College, Chennai
- Director, Center for Peace Studies, Madras Christian College, Chennai **Teaching**

Experience

- Taught part time at India Bible Institute of the All India Prayer Fellowship, Delhi
- Taught part time at the missionary Training institute of Pocket Testament League, Ghaziabad, UP (Near Delhi)
- Faculty in the Department of Missions at Jubilee Memorial Bible College, Chennai (1996-2011)
- Taught modular courses in Mission at Bethel Bible Institute, Danishpet, Salem, Tamilnadu for the B.D class (Serampore)
- Taught M.Th (Missiology) class (part time) at Hindustan Bible Institute, Chennai. Guided more than 5 M.Th theses at Hindustan Bible Institute, Chennai (ATA)
- Gave guest lectures at Reformed Theological Seminary, Charlotte, North Carolina, USA and Columbia International University, Columbia, South Carolina

- Taught several courses in the Diploma and Post Graduate Diploma courses at Institute for Advanced Christian Studies at Madras Christian College. (2013 onwards)
- Taught courses on “History of Christian Missions” and “Pastoral Counseling” for Chaplains of Christian Colleges in India at the *Chaplaincy training* organised by United Board for Christian Higher Education in Asia (UBCHEA) at Lady Doak College, Madurai
- Taught the course “History of Missions” for M.Th in Missiology (Serampore) at Gurukul Lutheran Theological College, Chennai.
- Currently serving as the Director, Center for Peace Studies at Madras Christian College and also as Academic Co-ordinator for Post Graduate Diploma in Christian Studies at Madras Christian College
- Also currently the co-ordinator for Sermpore examination center at Madras Christian College

Other Academic Experience

- Presented papers on mission related topics at several consultations such as CMS consultation, UBS, Pune, Evangelical Missiological Society (USA), Consultation organised by American Society of Missiology, Consultations organised by Madras Christian College, Hindustan Bible College Chennai, COTR, Visakhapatnam and many others.
- Contributed chapters on “Fundamentalism, Violence and Peace” in the book, *Curriculum in Peace and Conflict Studies* published by ISPCK, Delhi on behalf of Center for Peace Studies, Madras Christian College, on “Syrian Christians and Mission in India” in *Jubilee Reflections*, published by ISPCK on behalf of Jubilee Memorial Bible College etc.
- Edited book *Mission Today, Challenges and Opportunities*, Published by Madras Christian College. (Collection of papers presented at the Platinum Jubilee conference of the IMC 1938, held at MCC in 2013)
- Organised and trained College teachers for “Curriculum in Peace Education” at Jaffna (Srilanka), Dimapur (Nagaland) and Chennai (Tamilnadu)

Special Interest:

- Cross-cultural missions and cross-cultural communication
- Conversion and social transformation

- Theology of mission and Biblical Foundations of Mission □ Syrian Christians and Missions, indigenous missions etc.
- Peace Education and promotion of resource materials for Peace and Conflict Studies.

Ph.D Dissertation topic:THE SOCIAL, ECONOMIC AND RELIGIOUS IMPACT OF CONVERSION ON MAHAR CONVERTS TO BUDDHISM AND CHRISTIANITY IN SELECT VILLAGES OF MAHARASHTRA

Ms. Jenee Peter Director, Centre for Peace Education and Dialogue Union Christian College, Kerala



Jenee Peter PhD

Director| Centre for Peace Studies and Dialogue| Union Christian College| Aluva Asst

Professor| Department of History| Union Christian College| Aluva

Education

- 2003 PhD, Archaeology, M S University, Baroda
- MA Ancient Indian History, Culture and Archaeology, Deccan College, Pune
- MA History, Bharathiar University Interests
- Landscape Archaeology
- Maritime History
- Interreligious understanding and Peacebuilding Alumni
- Mindanao Peacebuilding Institute

Training

- Fundamentals of Peacebuilding
- Conflict Resolution
- Interreligious Understanding and Peacebuilding Fieldwork/ Research Projects
- United Board Project, 2015
- History of Religion and Muziris

Presentations

- At two sessions of the National Peace Convention held at Kochi and one webinar
- Paper at Holy Cross college, Trichy
- Paper on Constitution Day, Bishop Heber College, Trichy Publications
- Archaeology Vs Faith: Conflict over Ancient Churches in Kerala, 2019
- Indigenization and Catholic Cultures, DharmaramVidyaKshetram, Bangalore,

2013 **Invite**

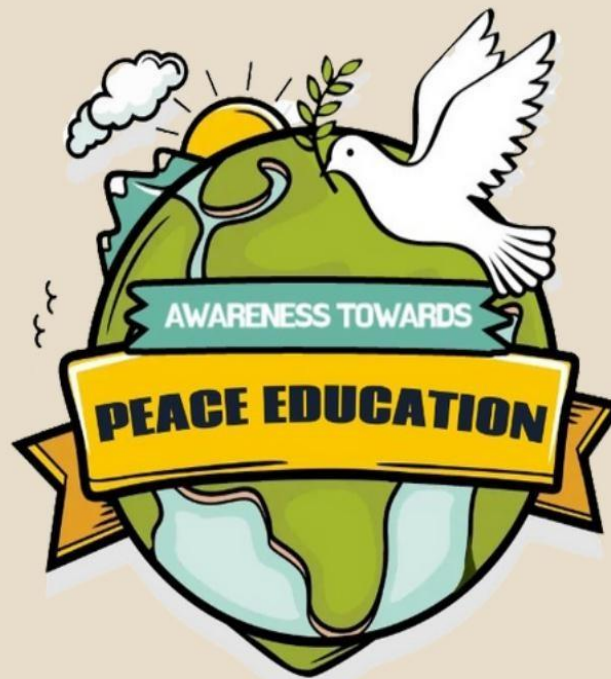


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INTERNATIONAL WEBINAR ON



organised by

DEPARTMENT OF ADVANCED ZOOLOGY AND BIOTECHNOLOGY

1st APRIL 2022 | 05:00 PM - 07:00 PM | ZOOM

2nd APRIL 2022 | 09:30 AM - 01:00 PM | ZOOM

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Agenda



International Webinar on “Awareness towards Peace Education” 1st April 2022 (Day 1)

Inauguration

5.00 - 5.10 pm	:	Welcome and Instructions
5.10 – 5.15 pm	:	Greetings Dr. Lilian I Jasper Principal, Women’s Christian College
5.15 – 5.20 pm	:	Invocation (SHOFAR) Student’s Gospel Music Band of Women’s Christian College
5.20 – 5.25 pm	:	Welcome Address Dr. Vanitha Williams Head, Department of Advanced Zoology and Biotechnology, Women’s Christian College
5.25 – 5.35 pm	:	Inaugural Address Dr. Christine Vertucci Director, Mindanao Peacebuilding Institute Foundation, Inc.Philippines
5.40 – 5.50 pm	:	Keynote Address Dr. Angela Wai Ching Wong Vice President for Programs United Board for Christian Higher Education in Asia
5.50 – 5.55 pm	:	Vote of Thanks Dr. V. Judia Harriet Sumathy Facilitator



**International Webinar on “Awareness towards Peace Education”
1st April 2022 (Day I)**

Session – I

- | | | |
|----------------|---|---|
| 6.00 - 6.30 pm | : | Lecture I
Deep Connections : Why Peace Education’s Time Has Come
Jonathan E. Rudy
Senior Consultant,
Peacebuilding Global
Mindanao Peace building Institute,
Philippines |
| 6.35 – 6.50 pm | : | Lecture II
My Philosophy of Peace Education
No one should be excluded from learning about Peace
Maria Ida Giguiento
Core facilitator,
Mindanao Peacebuilding Institute,
Philippines |
| 6.50 – 7.00 pm | : | Q & A and Group Snap |
| 7.00 – 7.05 pm | : | Announcements |



International Webinar on "Awareness towards Peace Education" 2nd April 2022 (Day 2)

Session - II

9.30 – 9.50 am	:	Welcome and Instructions
9.50 – 10.00 am	:	Opening Prayer Dr. Annie Rubens Assistant Professor, Department of Advanced Zoology and Biotechnology, Women's Christian College
10.00 – 10.25 am	:	Lecture III Challenges in designing a Curriculum for Peace Studies Rev. John Prasad Director, Center for Peace Studies, Madras Christian College, India
10.30 – 11.00 am	:	Lecture IV Centre for Peace Studies and Dialogue My Experience Ms. Jenee Peter Director, Centre for Peace Studies and Dialogue, Union Christian College, Aluva, Kerala
11.05 - 11.25 am	:	Lecture V Role of Science in Peace Education An Overview Dr. V. Judia Harriet Facilitator, Assistant Professor, Department of Advanced Zoology & Biotechnology, Women's Christian College
11.25 – 11.55 am	:	Q & A

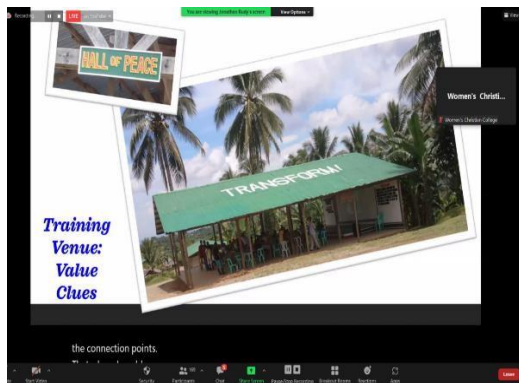
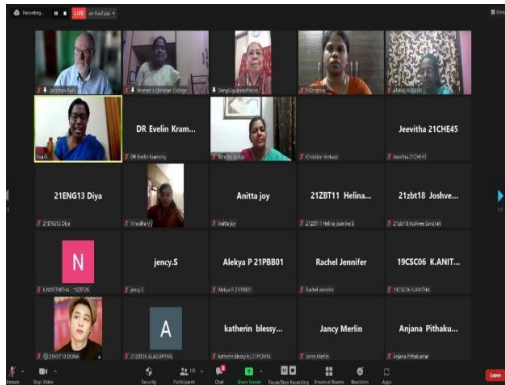
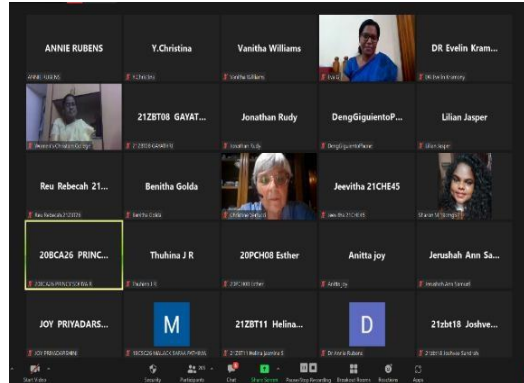
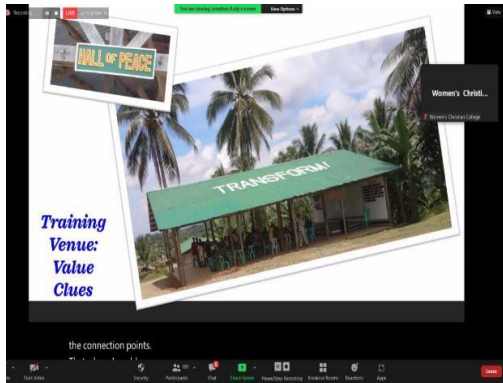


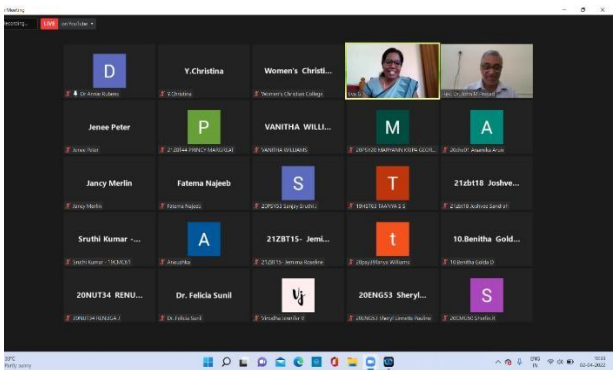
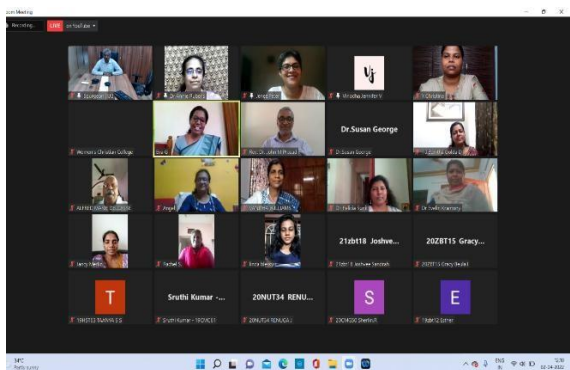
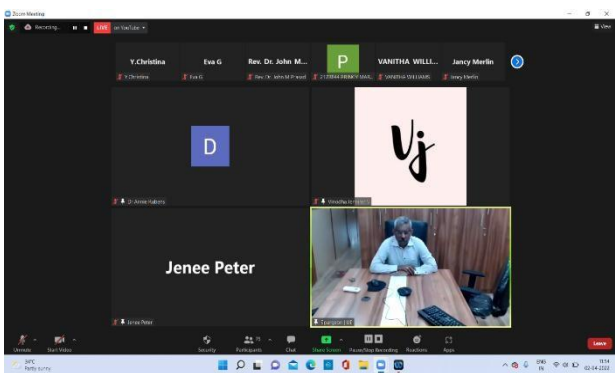
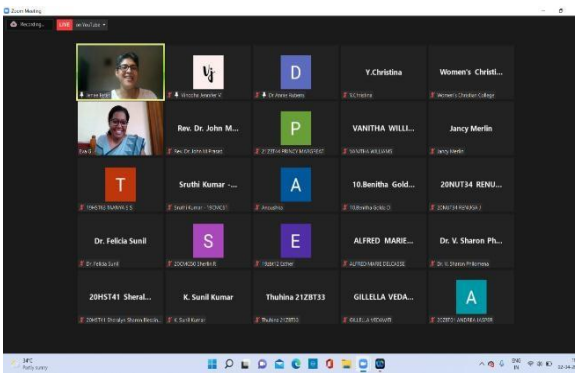
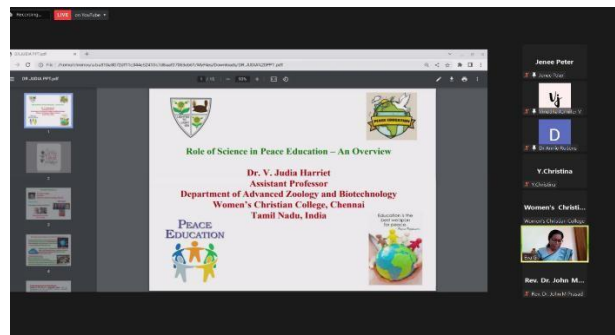
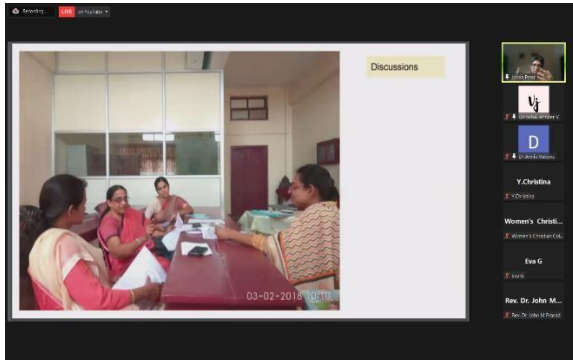
**International Webinar on "Awareness towards Peace Education"
2nd April 2022 (Day 2)**

Valedictory

- | | | |
|------------------|---|---|
| 12.05 – 12.10 pm | : | Invocation - SHOFAR |
| 12.10 – 12.20 pm | : | Valedictory Address
Rev. Dr. Spurgeon
Director of South Asia Programs
United Board for Christian
Higher Education in Asia |
| 12.20 – 12.30 pm | : | Feedback Session |
| 12.30 – 12.40 pm | : | Group Snap |
| 12.40 – 12.50 pm | : | Vote of Thanks
Dr. V. Judia Harriet
Facilitator,
Assistant Professor,
Department of Advanced Zoology
& Biotechnology,
Women's Christian College |

SNIPPETS OF THE WEBINAR





Recording... LIVE on YouTube You are viewing Women's Christian College's screen View Options

UB Team

Dr. Lillian I Jasper
Principal

My Beloved Coaches
Jon & Deng

Speakers

Dr. Christine Vertucci
Director
Mindanao Peace Institute

Unmute Start Video Security Participants 74 Chat Share Screen Pause/Stop Recording Reactions Apps Leave

Dr Annie Rubens
Vinodha Jennifer V
Jenee Peter
Jenee Peter
Spurgeon | UB
Women's Christian College

Recording... LIVE on YouTube

**AZBT
Team
Faculty
and
Students**

Dr Annie Rubens
Vinodha Jennifer V
Jenee Peter
Jenee Peter
Spurgeon | UB
Women's Christian College

Report on Biofilms in Wound healing – A special lecture by Dr. Shomita Steiner

On June 3rd, 2022, Dr. Shomita, an alumna of the department of zoology (1995-1998) who is currently working as the Associate Director for Laboratory Operations Indiana Center for Regenerative Medicine and Engineering Indiana University gave us a lecture about how biofilms work, its mechanism and the treatment methods. Firstly, she explained what are biofilms, the growth pattern of biofilms and the types of medically relevant biofilms, which are inclusive of device-related infections and chronic infections. Biofilms are comparatively difficult to detect unlike normal infections, since the matrix design formed by the bacteria, fungi and other microbes, acts like a protective shell over the wound, prevents the progression of the healing process, and keeps out the potential treatments. Dr. Shomita explained the detection of biofilms is possible by taking a biopsy from the suspected area and processing it in an electron microscope. She also emphasized the point that visual wound healing does not mean that it is functional wound healing. Dr. Shomita took us through the process about how they used Porcine Burn Wound biofilms in which the debridement was ineffective to eradicate the wounds, but silver was used to treat the wounds. The treatment for biofilm includes two methods: Traditional and Emergent and specifically in Emergent method – Electroceuticals. She explained about how Wireless Electroceutical Dressing (WED) that uses silver and zinc printed on fabric in a geometric pattern was used to prevent the formation of biofilms after the burn and this happens when it is moistened using gel or bodily fluids, WED generates a weak electric field without any external power supply. She concluded the lecture by stating the future directions, which includes DNA- protein inhibitors, Next-gen electroceuticals, and biomarkers of biofilm infections – TEWL. This lecture gave us a deeper insight into the mechanism of biofilm and the various developing treatments and it was very resourceful. Around 106 students of the department and 12 faculty members of the College attended the talk and were enlightened.

