NTNU | Alumni – India and Bhutan

COVID-19 : Management Strategies

Webinar Dated **21st November** 2020 from **3:00 PM IST**

Dr Sulalit Bandyopadhyay
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Department of Chemical Engineering
Faculty of Natural Sciences
NTNU

Prof. Brajesh Kumar Dubey
Associate Professor
Department of Civil Engineering
IIT Kharagpur

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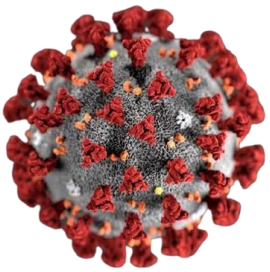
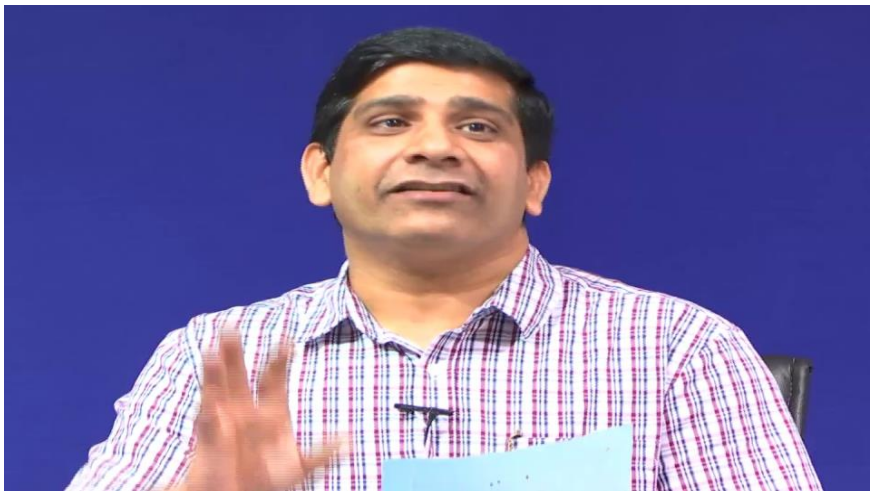
Norwegian University of Science and Technology



SESSION 1

Dr. Sulalit Bandyopadhyay

(COVID-19 Diagnostic Test: An Interdisciplinary Solution)



SESSION 2

Dr. Brajesh Kumar Dubey

(COVID-19 Waste Management, Challenges and Possible Solution)

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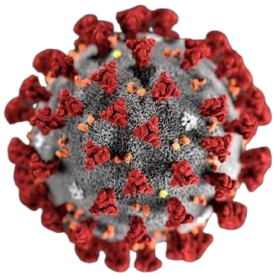

Attendees:

Nipurn Sarbhai, Shilpa Mishra, **Rita Kumar**, Zaid Siddiqui, Capt. Sanjay Tyagi, Tusshar, Amit Kumar, Faizan Khan, Rajesh Chaudhary, Sunil Mandal, **Saud Afzal**, P Kumar, PSarin, Nandini Gupta, Lalit Kumar, HUMAID, Misbah Rufaida, R. Soni, PRAMOD KUMAR RAM, Afreen khan, Aiman, Sunita Tyagi, **Brajesh Dubey**, Rishabh, Debasish, Anubha Putatunda, Ainal Hoque Gazi, Sirsha Bandyopadhyay, Afreen, Zainul, Arijit Pradhan, AK Agrawal, Girija. T.R, **Venugopal**, **Sulalit Bandyopadhyay**, Suditya Sinha, Shekhar Gautam, Shaik Firoj, **Prabhat Kumar, Aravind K. Agrawal** & More.

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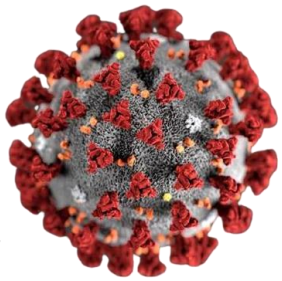

SESSION BEGINS

Webinar session started with the welcome speech by **Mr. Prabhat Kumar, Chair-NTNU Alumni India and Bhutan** and **Mr. Saud Afzal, Vice Chair-NAIB**: There are about 100 + registered alumni located in India & Bhutan and they performing very well in their respective fields. The diaspora is spread in the field of Hydropower and Renewable Energy, Petroleum, Marine Science, Urban Planning, Architecture and more. It is an honor to bear the label of **NTNU** while acquiring professional degree just like adding gems to a queen's necklace. **NTNU** has strong Research and education base and alumni can utilize connection with alma mater to outshine in their professional life. **NTNU** alumni have potential to co-operate and enrich their valuable knowledge and experience. The webinar session started with welcome of speakers and delegates.

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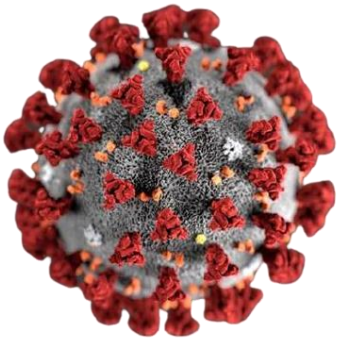

SESSION 1

Dr. Sulalit Bandyopadhyay

(COVID-19 Diagnostic Test: An Interdisciplinary Solution)

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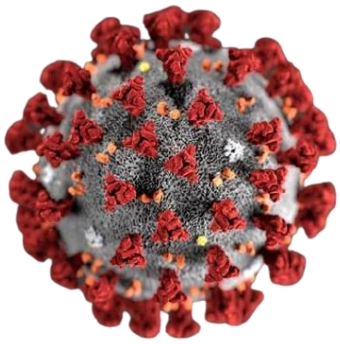

I. COVID-19 Diagnostic Test: An Interdisciplinary Solution - Dr. Sulalit Bandyopadhyay.

a. Norway went into lockdown on 12th March 2020.

b. In view of necessity and a challenges, NTNU development test kit crossing many obstacles like lack of time, approvals, Magnetic Beads Needed, Scalability, Collaboration, Testing, Validation, and Administrative Support & Facilities etc.

c. Department of Clinical and Molecular Medicine and the Department of Chemical Engineering of NTNU jointly developed Covid-19 detection test method which involves magnetic nano particles based detection of Covid RNA. In a time span of less than a month NTNU managed to complete whole process from testing till approval.

d. NTNU has successfully geared up and produced 5.1 million kits for Norway. Test kits have been sent to DTU and a manufacturing lab in India.

e. Proposals are in pipeline for partnership with many life science industries for Test-kits.

f. Secret behind achieving such a huge target is a team with a strong knowledge, collaboration & discipline. Which ideally NTNU has and it has been proved.

g. NTNU's collaboration and work on the COVID-19 test is a good example of how new connections can help to solve social challenges in an effective way.

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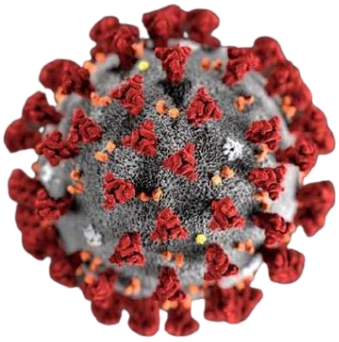

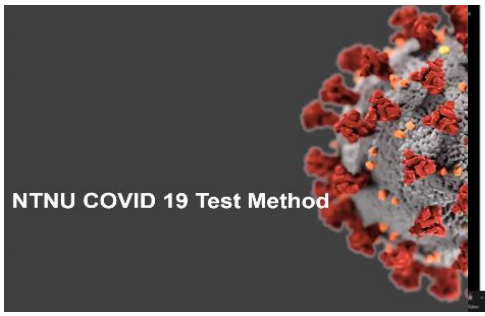

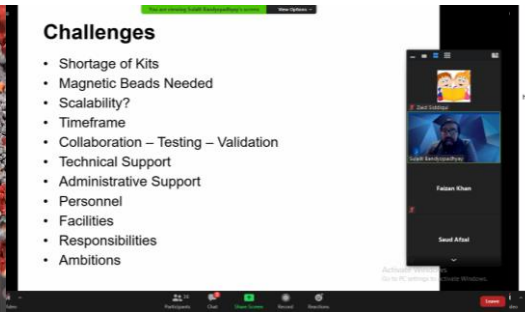

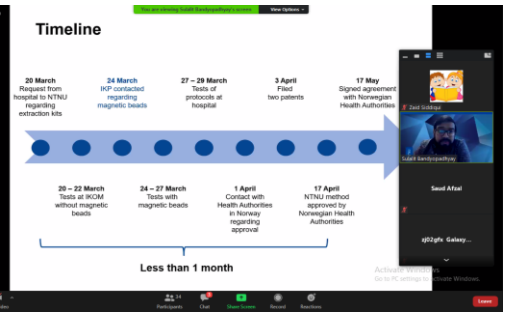

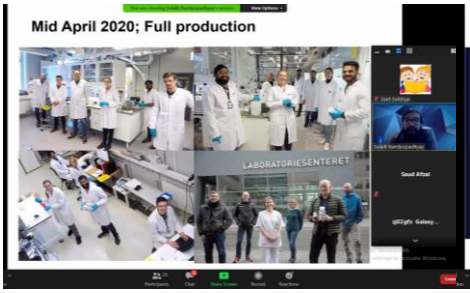

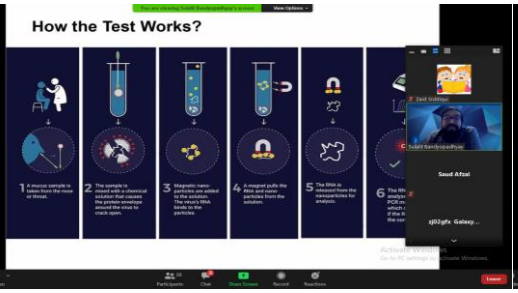

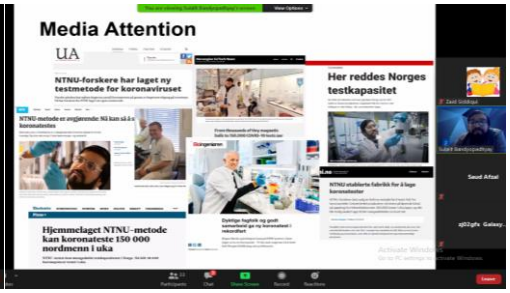

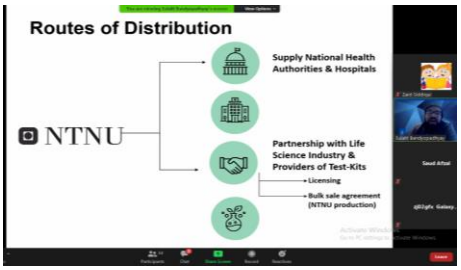

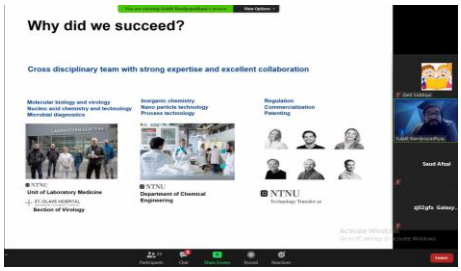

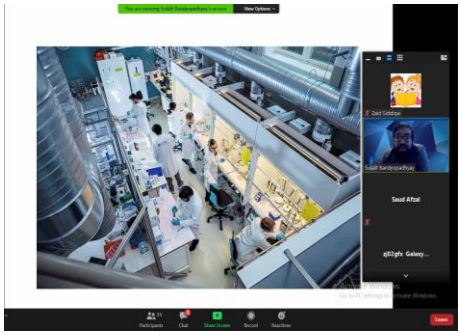

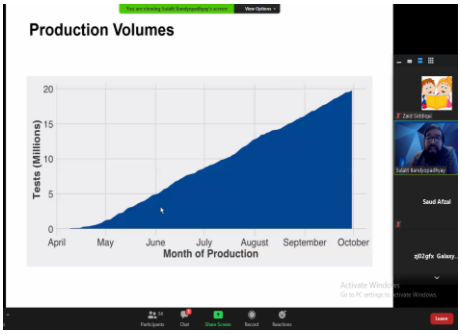

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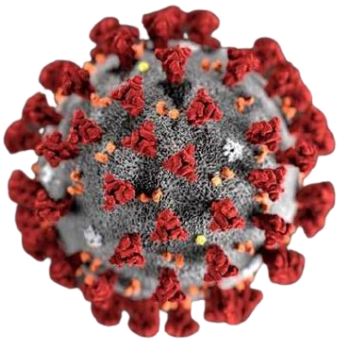
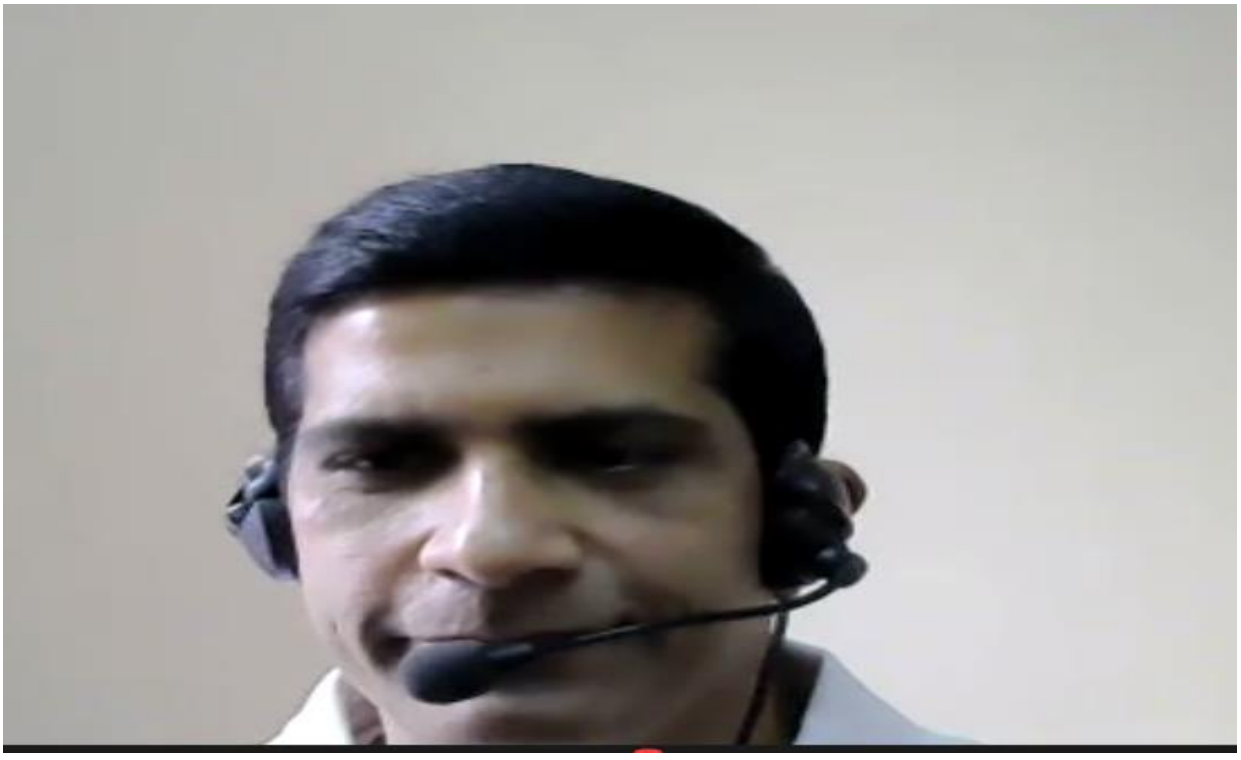


SESSION 2

Dr. Brajesh Kumar Dubey

(COVID-19 Waste Management, Challenges and Possible Solution)



REUSE
REDUCE
RECYCLE

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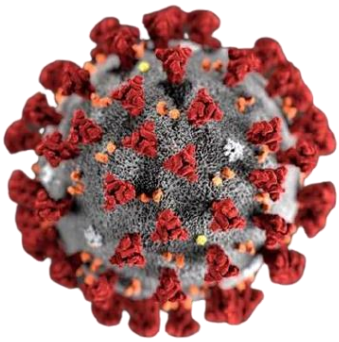

COVID-19 Waste Management, Challenges & Possible Solution - Dr. Brajesh Kumar Dubey, IIT-Kharagpur

a) As always the concept of managing waste is Recycle-Reduce-Reuse.

b) It is shocking to know that globally municipal solid waste is about 2.01 billion tons annually.

c) If we don't apply the formula of RRR i.e. (Recycle-Reduce-Reuse). Then by year 2050 we have to be ready to bear the load of waste of about 3.4 billion tons.

d) Solid waste consists of metal, glass, plastic, paper products and foods. Hence we have to reduce it systematically without effecting human life style and comforts.

e) Segregation of Wet and Dry waste is the key for effective disposal. Making curry of it will create mess and will land the whole thing into jig saw which is very tough to solve.

f) COVID-19 waste management needs to be implemented on high priority basis. As the COVID-19 RNA lifecycles varies from material to material. Hence it involves volunteer especially our youths with immense knowledge of handling it and resources to dispose it. It is duty of every individual to work on it and simultaneously educate others as well.

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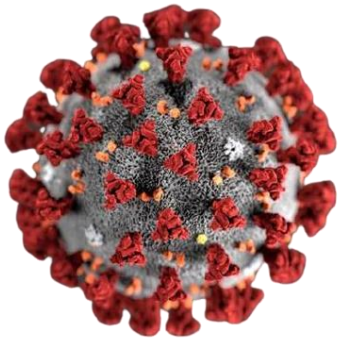

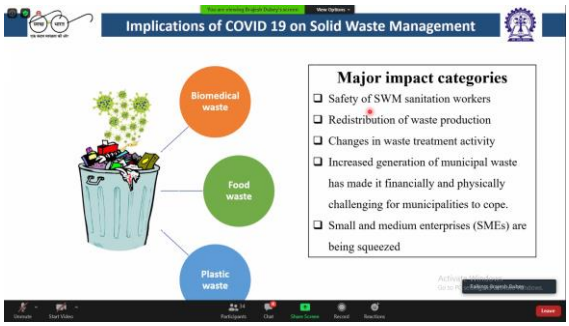

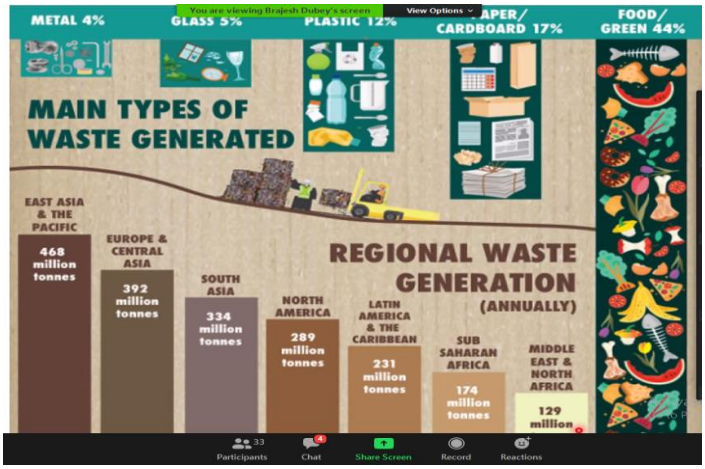

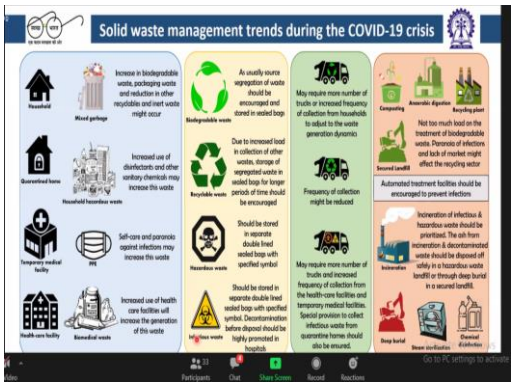

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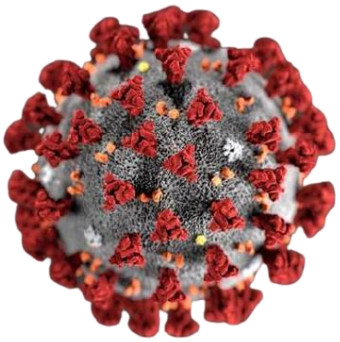


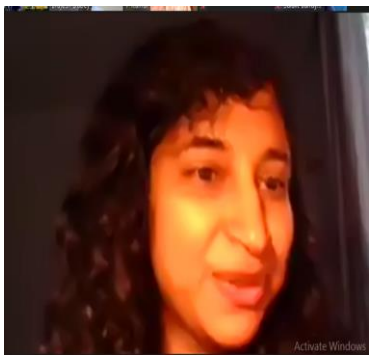
II. Listeners took keen interest in both the session however session-2 was enjoyed by everyone by putting questions and suggestions. Webinar ended with inputs and ideas of **Mrs. Rita Kumar** & Vote of thanks by **Mr. Aravind Kumar Agrawal**.

a) This kind of seminar should be conducted regularly as said by **Mrs. Rita Kumar**.

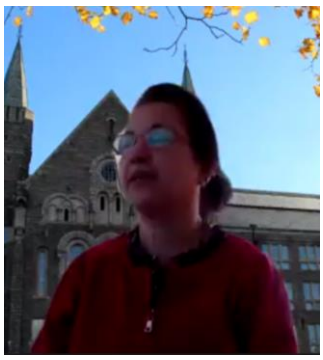
b) Efforts of **Dr. Sulalit** & **Dr. Dubey** was appreciated for presenting such a great session and full of information. Thanks to all the Board Members, Organizers and everyone who attended the webinar and made it successful.

c) Mrs. Rita offered thanks and gratitude to **Prof. Saud Afzal** & **Mr. Prabhat Kumar.**

SOME INTERACTIONS



Mrs. Amritha Ballal



Mrs. Rita Kumar

Mr. Prabhat Kumar

Mr. Saud Afzal