## COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH

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CSIR Complex, Library Avenue, Pusa, New Delhi 110 012

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Email: symposia.travel@gmail.com , web http://csirhrdg.res.in

Hemant Kulkarni Senior Principal Scientist

> Ref No. SYM/10631/20-HRD April 20, 2021

Dr K Kannan
Professor & Head Dept. of Chemical Engineering
Kongu Engineering College
Perundurai, Erode-638 060 Tamil Nadu

SUBJECT: Contaminate & Pollutant Management during Apr 22-23,2021 at Kongu Engineering

College, Erode

Dear Dr Kannan

With reference to your application on the above subject, we are happy to inform you that Director General, CSIR has been pleased to sanction a grant of Rs.25000/- (Rupees Twenty Five Thousand Only) subject to the following conditions:

- The grant received from CSIR should be duly acknowledged by email along with a certificate that the grant would be specifically utilized for the purpose for which it has been sanctioned.
- 2. The grant may be reimbursed within four months from the date of Conference/Seminar/Workshop etc. is over by filling-in the Grant-in-Aid Bill Form in duplicate duly signed and rubber stamped by the concerned officials, indicating clearly the designation of the official along with Audited Statement of Expenditure for release of grant. Current Proforma for Grant-in-aid bill, Audited Statement of Expenditure and NEFT are available on our website <a href="http://csirhrdg.res.in/Home/Index/1/InPage/53/14">http://csirhrdg.res.in/Home/Index/1/InPage/53/14</a>. If any Utilization Certificates of Previous Grant for symposia (as per Col.No. 15 of the Application Performa) is not submitted till date, please attach copies of Utilization Certificates also. Any claim received beyond 4 months will be entertained only in exceptional cases subject to submission of reasons for delay, duly forwarded through Head of the Organization. In no case, the claim will be entertained after 6 months. All the pages of above documents should be self attested by the organizer.
- 3. Invitation cards should be sent to the Director General, CSIR and Head, HRDG. CSIR may nominate three scientists for the above event and registration fee should not be charged from them. In case of nomination, the Head, HRDG or the undersigned would issue a letter with a copy to the nominee(s).
- 4. Softcopy (preferably in Pen Drive /CD/ DVD in PDF format) of the full paper proceedings of above event should be sent to the undersigned.
- 5. An overall activity report by the Convener / Organizing Secretary should be made available by email to us with regard to outcome of the gathering, the recommendations and plan of action for future. The names, addresses & email IDs of the participants / delegates should also be sent immediately after the event by email.

Yours sincerely,

(Hemant Kulkarni)

Copy to: Audit (EMR) HRDG

#### Registration Fee for the Participants: Only conference:

UG/PG Student :INR 500
Research scholar :INR 600
Academician/Industry/ R&D institute :INR 1000
Participants :INR 200

Registration, online payment details will be communicated through email for the accepted papers. Guest Participant can enroll in the link at webpage registration page. At least one author per paper should be registered before due date.

#### SUBMISSION GUIDELINES FOR AUTHORS

- Paper should be original not published anywhere and Plagiarism less than 5%
- Initial paper can be submitted in single column; Times New Roman; 12 Font size; 1.5 line spacing
- Camera ready paper in Latex/Word (format will be sent along with acceptance)
- Submission of copyright form(*after acceptance*)

The authors are requested to send/submit the papers through

Email: concpm21@gmail.com

#### **Publications**

All papers will be accepted after peer review process for the publication. Only presented papers will be considered for publication. Abstract of the presented papers will be published in Internal Conference Proceedings and Papers will be referred to journals.

Selected papers will go through peer review process and will be published in a Special issue of

- 1. Environmental Science and Pollution Research (ESPR) (IF: 3.027)
- 2. Toxicological and Environmental Chemistry(T&EC) (IF: 1.145)

#### Paper Presentation

Paper should be presented in virtual platform. According to the pre-informed schedule, the speaker will be required to present a paper live through screen share option as per the stipulated time.

#### **Important Dates**

Deadline for Abstract Submission 18, March 2021
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Early Bird Registration 15, April 2021
Conference Date 22<sup>th</sup>&23<sup>th</sup> of April 2021

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Thiru.P.Sachithanandan Correspondent Kongu Engineering College

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Dr.PagidiAruna





# CSIR SPONSORED NATIONAL CONFERENCE ON CONTAMINATE AND POLLUTANT MANAGEMENT (CONCPM-2021)





## ConCPM-2021 22.04.2021-23.04.2021



## Organized by

## **Department of Chemical Engineering**

School of Chemical and Food Sciences KONGU ENGINEERING COLLEGE (Autonomous)

Perundurai – 638 060, Erode, Tamilnadu Website: www.kongu.ac.in

#### ABOUT KEC

Kongu Engineering College, one of the foremost multi professional research-led Institutions is internationally a recognized leader in professional and career-oriented education. It provides an integral, inter-disciplinary education - a unique intersection between theory and practice, passion and reason. The College offers courses of study that are on the frontiers of knowledge and it connects the spiritual and practical dimensions of intellectual life, in a stimulating environment that fosters rigorous scholarship and supportive community. This Institute is a great possession of the committed Trust called 'The KonguVellalar Institute of Technology Trust' in Erode District, Tamilnadu. The noble Trust has taken the institute to greater heights since its inception in 1983 and has established the college as a forum for imparting value based education for men and women.

The college has completed more than three decades of dedicated service to the people of India and abroad in the field of Technical Education. The Institution has an area of 167 acres of land richly endowed with beautiful greeneries. The college with its state-of- the- art infrastructural facilities and excellent academic records has earned recognition as one of the reputed educational institutions for men and women in India. The college is accredited by NAAC and all eligible branches are accredited by NBA.

#### ABOUT THE DEPARTMENT

Department of Chemical Engineering was started in the academic year 1994 -1995 and offers B.Tech., and M.Tech., degree programmes in Chemical Engineering. This department is one of the recognized research centers by the Anna University, Chennai. The Department comprises of qualified staff members with good academic and industrial exposure. Well-equipped laboratories with advanced simulation softwares like ASPEN, HYSYS, HTRI and GPROMs cater to the interests of aspiring students. The department focuses on imparting students with excellent technical knowledge to meet the needs of industries and research as well. The department is accredited by NBA, New Delhi.

#### ConCPM- 2021

New ideas on the research outcome of organic and inorganic contaminant and pollutants including microplastics, emerging contaminants, heavy metals, inorganic salts, biological degradents and persistent organic pollutants will be discussed for further invention in this field. In this conference, some of the common methods used by wastewater treatment plants such as Physico-Chemical Treatment, Biological Treatment, Reduce Recycle and Reuse, Zero Liquid Discharge System, Municipal water management etc., was shared among the participants. Also, the knowledge sharing of latest techniques available for controlling Air and Noise pollution will be conducted. This Conference will fill this gap and helps the nation to achieve pollution free environment.

#### **CALL FOR PAPERS**

The original research papers are invited in the following topics:

- ➤ Industrial solid waste management
- ➤ Utilization of waste materials
- ➤ Integrated waste management
- ➤ Recycling
- ➤ Waste reduction
- ➤ Biological treatment
- > Thermal treatment
- > Environmental impact and assessment

ADVISORY COMMITTEE MEMBERS

- ➤ Nanotechnology
- ➤ Zero liquid discharge
- ➤ Green concepts for pollution Management

- ➤ Air pollution
- ➤ Hazardous waste management
- ➤ Radioactive waste
- ➤ E-Waste management
- ➤ Advanced oxidation processes
- ➤ Water purification
- Carbon emission reduction
- ➤ Carbon footprint
- ➤ Composite materials
- > Environmental materials
- ➤ Noise pollution
- ➤ Sequestration of industrial pollutants

## **Keynote Speakers**



Prof. G. Pugazhenthi IIT Guwahati, Assam

Prof. K. Muthukumar NIT, Trichy, Tamilnadu

Prof. K. Venkateswara Rao, JNTUH, Telangana



Dr.S.T.Ramesh NIT, Trichy, Tamilnadu



Prof. M. Muthukumar Central University of Kasargod, Kerala



Prof. N. Balasubramanian, Anna University, Chennai, Tamilnadu

- Dr. A. Arunagiri, NIT Trichy, Tamilnadu
   Dr. N. Gomathi, Indian Institute of Space Science and
- Technology, Trivandrum, Kerala
- Dr. N. Krishna Kumar, Sr. Technical officer, DRDO, Chennai, Tamilnadu
- Dr. A. Manuel Stephan, Central Electrochemical Research Institute, Karaikudi, Tamilnadu
- Dr. J. B. Naik, KBC-North Maharashtra University, Jalgaon, Maharashstra
- Dr. G. NirmalaVIT Deemed University, Vellore, Tamilnadu.
- Dr. T S R PrasadaRao, Indian Institute of Petroleum (IIP), Dehradun, Uttarakhand
- Dr. K.S. Rajan SASTRA Deemed to be University, Tanjore, Tamilnadu
- Dr. I. Regupathi, NIT Surathkal, Karnataka
- Dr. P. Shanmugam, Central Leather Research Institute, Chennai, Tamilnadu
- Dr.V. Sivakumar, Anna university, Chennai, Tamilnadu
- Dr.V.M.Sivakumar, Coimbatore Institute of Technology Coimbatore, Tamilnadu
- Dr. V. Sivasubramanian, NIT Calicut, Kozhikode, Kerala
- Mr. Thaj Mohammed Khaleel, EKM Leather Processing Company, Erode, Tamilnadu



#### **CONTACT US**

The Coordinator ConCPM-2021

Department of Chemical Engineering Kongu Engineering College, Perundurai, Erode - 638 060, Tamilnadu Mobile: +91 9442520334 (Dr.A.S.P. Manikandan), +91 8098079696 (Dr.P.Shanmugam)

Email: <a href="mailto:concpm21@gmail.com">concpm21@gmail.com</a>
Website: <a href="https://sites.google.com/kongu.edu/conference-concpm-2021/home">https://sites.google.com/kongu.edu/conference-concpm-2021/home</a>

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## NATIONAL CONFERENCE ON CONTAMINATE AND POLLUTANT MANAGEMENT (CONCPM-2021)





## ConCPM-2021 22.04.2021-23.04.2021



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# KONGU ENGINEERING COLLEGE (Autonomous) DEPARTMENT OF CHEMICAL ENGINEERING



Dr. K.Kannan M.Tech., Ph.D Professor and Head Department of Chemical Engineering Kongu Engineering College Perundurai – 638060.

## **OVERALL ACTIVITY REPORT**

CSIR Sponsored National Conference on Contaminate and PollutantManagement (CONCPM-2021)

"Eradication of pollution for safe and sustainable environment"

April 22<sup>nd</sup> and 23<sup>rd</sup> 2021

Dear Sir/Madam,

First we whole heartedly thank the Council of Scientific and Industrial Research (CSIR) for providing the financial support to organize CSIR Sponsored two day National level conference named ConCPM 2021 at Department of Chemical Engineering, Kongu Engineering College, Perundurai. The Conference was proposed with the prime objective of providing a platform for exchanging technologies among experts with relevant to Contaminate and Pollutant Management.

### **Objective and Selective Topics in the Conference:**

New ideas on the research outcome of organic and inorganic contaminant and pollutants including microplastics, emerging contaminants, heavy metals, inorganic salts, biological degradents and persistent organic pollutants were discussed in this conference. In this conference, some of the common methods used by wastewater treatment plants such as Physico-Chemical Treatment, Biological Treatment, Reduce Recycle and Reuse, Zero Liquid Discharge System, Municipal water management etc., was shared among the participants. Also, the knowledge sharing of latest techniques available for controlling Air and Noise pollution were conducted. We assure that this Conference filled the gap on environmental issues and helps the nation to achieve pollution free environment.

The original research papers were invited in the following topics

- 1. Industrial solid waste management
- 2. Utilization of waste materials
- 3. Integrated waste management Recycling
- 4. Waste reduction
- 5. Biological treatment
- 6. Thermal treatment
- 7. Environmental impact and assessment
- 8. Nanotechnology
- 9. Zero liquid discharge
- 10. Green concepts for pollution Management
- 11. Air pollution

- 12. Hazardous waste management
- 13. Radioactive waste
- 14. E-Waste management
- 15. Advanced oxidation processes
- 16. Water purification
- 17. Carbon emission reduction
- 18. Carbon footprint
- 19. Composite materials
- 20. Environmental materials
- 21. Noise pollution
- 22. Sequestration of industrial pollutants

### **Outcome of the gathering:**

In this conference global issues of environmental problems like global warming, climate change, air, water and land pollution was discussed by Researchers and suggested solutions to mitigate such environmental issues.

As listed below, we have received around 80 Papers for Oral Presentations. The detailed abstract is sent as a Conference Proceedings.

## ORAL PRESENTATIONS

S.NO	PAPER ID	AUTHORS	PAPER TITLE	PAGE NO.
1. Adso	rbents			
1.	ADS001	Prateekshya Suman Sahu	COMPARATIVE EVALUATION OF GRAPHENE DERIVATIVES FOR WATER REMEDIATION	1
2.	ADS002	R. Jagadeeswari, G. Rathika, K.V. Satheeskumar, P.Selvakumar	ADSORPTION OF AQUEOUS Cu(II) AND Pb(II) IONS USING NIO NANOPARTICLE DERIVED FROM URTICA DIOICA PLANT EXTRACT	2
3.	ADS003	R.Saravanan, P.Selvakumar, M.S.Karthikeyan, K.V. Satheeskumar, L.Ravikumar	STATISTICAL OPTIMIZATION, KINETIC AND ISOTHERM STUDIES ON ADSORPTION OF AQUEOUS Cu(II) AND Pb(II) IONS USING MODIFIED CELLULOSE	3
4.	ADS004	Dibya Ranjan Rout, Hara Mohan Jena	REMOVAL OF PHENOL FROM AQUEOUS SOLUTION USING REDUCED GRAPHENE OXIDE AS ADSORBENT: ISOTHERM, KINETIC AND THERMODYNAMIC STUDIES	4
5.	ADS005	S.Manoj, S.Pavithran, P.Sanjay, J.Pradeepan	A STUDY ON EFFICACY OF TAIPOCA ACTIVATED CHARCOAL IN TREATMENTOF DYE EFFLUVIUM	5

6.	ADS006	L. Vidhya Raguraman, S.Vinodha, Sathiya Prabhakaran	ADSORPTION AND KINETICS STUDIES ON SEQUESTERING EFFECT OF POROUS BIODEGRADABLE BIOCHAR OBTAINED FROM PIG-BONE ON HEXAVALENT CHROMIUM FROM AQUEOUS SOLUTIONS	6
7.	ADS007	T.Ravi Prakash, Dr.S.Balaji, S.Rishi Ragothaman, K.Rakesh, R.S.Rajavel	AN EXPERIMENTAL STUDY ON WATER PURIFICATION USING MORINGA OLEIFERA POWDER	7
8.	ADS008	Dr.K.Kannan, Poornamathy SV, Sriviswa K, Naveen Kumar S	COMPARATIVE STUDIES ON TREATMENT OF TANNERY EFFLUENT USING CARBON COMPOSITE	8
9.	ADS009	Nesakumar D, Ajithkumar R, Eniya S, Gokul G	SYNTHESIS OF MAGNATITE CARBON NANOCOMPOSITES FROM PLASTIC WASTE AND ITS APPLICATION IN WASTE WATER TREATMENT	9
10.	ADS010	Dr.K.Senthilkumar, M.Geetha	COMPARATIVE STUDIES ON REMOVAL OF DYE FROM AQUEOUS SOLUTIONS BY ACTIVATED CARBON FROM GLORIOSA SUPERBA PERICARP	10
11.	ADS011	Shaik Mohammad Shameer Ahameda , Dr. S Sharada	PREPARATION OF ACTIVATED CHARCOAL FROM THE BIOMASS OF AZADIRACHTA INDICA	11

2. Air 1	Pollution			
12.	AP001	A S Sajitha, N Bharath, G Leo Megavel, B Gowtham	MITIGATION OF HARMFUL GASES PRESENT IN VEHICLE EXHAUST WITH THE USAGE OF Mn-Cu/TiO <sub>2</sub> CATALYST	12
13.	AP002	K V Satheesh kumar, M Dharmaraj, P Selvakumar, K R Uvanshankar, D Vishal	IMPACT OF WELDING FUME AEROSOLSAND ITS ASSESSMENTIN A CONFINED WORKPLACEBY TWO EXTRACTIONPATTERNS - A CASE STUDY	13
14.	AP003	T.Sundara Priya, N.Nandhini	ANALYSIS OF BUILDING FOR COMPLIANCE WITH ENERGY AND ATMOSPHERE CATEGORY OF LEED O+M	14
15.	AP004	Dr.K.Kannan, Maheswari V, Dhivya N, Muthu Mayan N	SEPERATION OF NITROGEN FROM AIR USING ACTIVATED BENTONITE FOR THE REDUCTION OF NOx	15
3. Cata	alytic Waste Ti	reatment		•
16.	CWW001	Aastha Puspalak, Preetha Chinnadurai, R Prathibha, Dr. M. Prathap Kumar, Dr. V. Udaya Kumar, Soumyashree S. Hosamani	COBALT NANOPARTICLES BASED CARBON ELECTRODE FOR DETECTIONOF RESIDUAL NITRITE IN THE SOIL OF AGRICULTURAL FIELDS	16
17.	CWW002	Pranav S, Vishwa T, Rahul Adithya C, Pavin Kumar M	SONOCATALYTIC DISINTEGRATION OF HEXAVALENT CHROMIUM IN CONTINUOUS MODE	17

18.	CWW003	T Sathish, S Siva, S Mohideenalibatcha, K Siva Surendar, K Rishikesh	TANNERY EFFLUENT TREATMENT BY ADVANCED OXIDATION PROCESS USING MnO2 AND TiO2 IN COMBINATION WITH H2O2	
4. Chei	mical Complex	X		
19.	CCX001	K. Banupriya, S.Vairam, S.Parveen & S. Packiaraj	SYNTHESIS, CHARACTERIZATION, ANTIOXIDANT AND BIOMOLECULAR INTERACTION OF TRIVALENT LANTHANIDE METAL COMPLEXES OF 1,4 CYCLOHEXANE DICARBOXYLIC ACID AS A PRECURSORS FOR NANOSIZED RARE-EARTH CARBONATES	19
20.	CCX002	Samraj S, S S Hosamani, AnandM, Hemanth S Rao, Nihal.U. Kunder, Praneeth B M	STUDIES ON SUB-BOILING STILL USING INFRARED RADIATION AND GRAHAM CONDENSER FOR MANUFACTURE OF HIGH PURITY AMMONIUM HYDROXIDEAND METHYL -ISO BUTYL KETONE SOLUTION	20
21.	CCX003	K. Banupriya, S. Parveen, R. Rathinam, D.Sudhad, A. Revathi & R. Umarani	TETRAPROPYLAMMONIUM TRIBROMOZINCATE COMPLEX[(C3H7)4N]2ZnBr5(II) - SYNTHESIS, THERMAL, SPECTRAL CHARACTERIZATION AND ANTIOXIDANT ACTIVITY	21
5. Com	posites			
22.	CON001	R.K.Sangeetha, G.Keerthana, J. Om Prakash, G. Ragunesh, R.Sanmathi	ANALYSING THE EFFICIENCY OF HEMP FIBRE IN ENHANCING THE FLEXURAL PROPERTY OF CONCRETE - A REVIEW	22
23.	CON002	Karthikeyan.S, Geethanjali.N, Aravinth M.S, Deepanraj M	STUDY ON THE FLEXURAL AND IMPACT BEHAVIOUR OF FIBRE REINFORCED SLABS	23
24.	CON003	S. Jayashree, S. Suchithra	COMPARATIVE EXPERIMENTAL RESULTS ON STRENGTH PROPERTIES OFRECYCLED AGGREGATE CONCRETE FILLED PVC COMPOSITE SHORT COLUMN	24
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26.	CON005	K. Gayathri, S. Noor Shafa, S. P.Muralikannan, R.Baskar	STUDY ON MECHANICAL PROPERTIES OF POLYMER CONCRETE INCORPORATING POLYESTER RESIN	26
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## Plan of action for future:

The Selected papers will go through peer review process and will be published in a Special issue of the following Peer Reviewed Journals.

- 1. Environmental Science and Pollution Research (ESPR) (IF: 3.027)
- 2. Toxicological and Environmental Chemistry (T&EC) (IF: 1.145)

We have planned to continue the conference in upcoming years. At this juncture, we once again thank and expect the Support from CSIR for conducting such event in future.

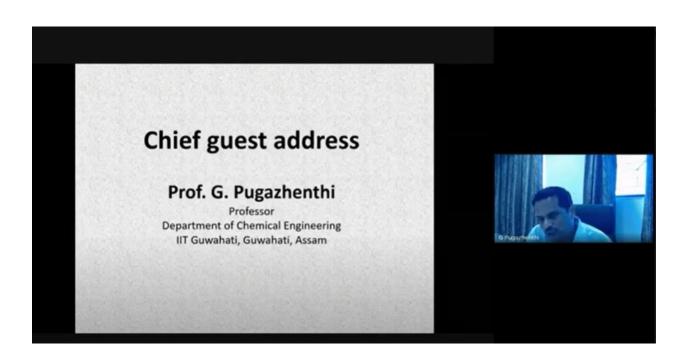
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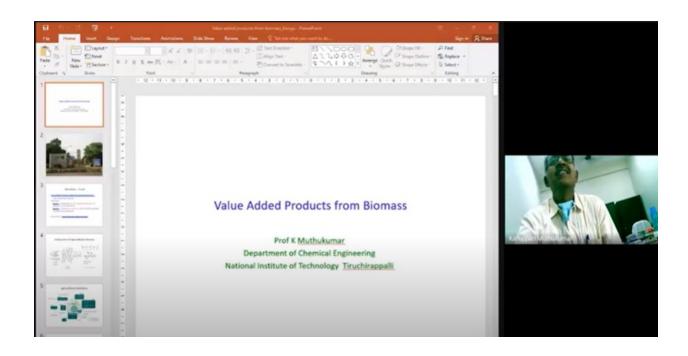
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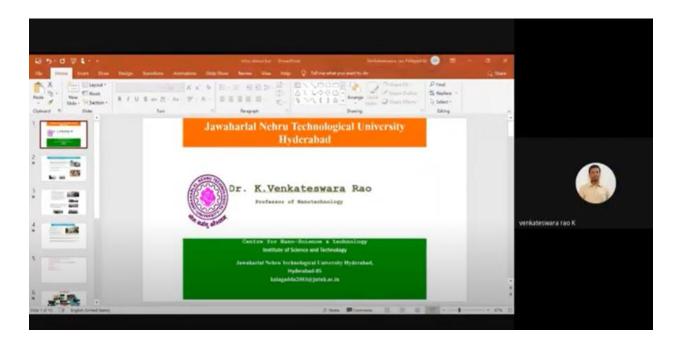
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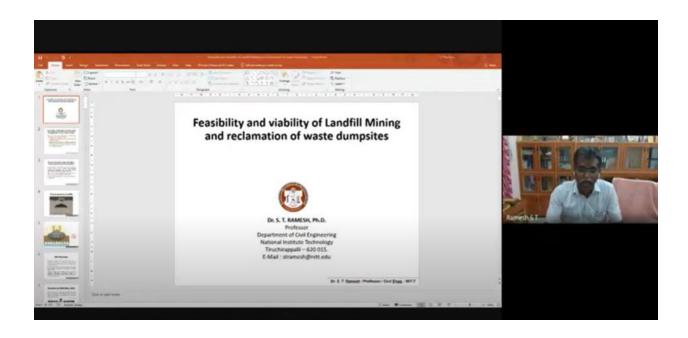
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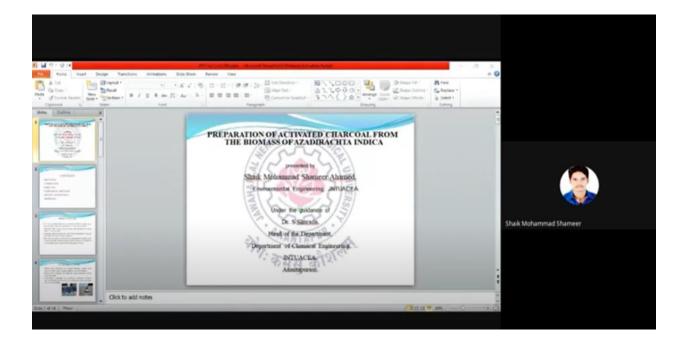














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## DEPARTMENT OF CHEMICAL ENGINEERING

CSIR Sponsored National Conference on Contaminate and Pollutant Management



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Symposia Grant Scheme for Organising Scientific Events (Symposia/ Seminars / Conferences / workshops, etc. within India

## AUDITED STATEMENT OF EXPENDITURE To be filled by the applicant in duplicate

Date: 16.09.2021

Reference: CSIR Sanction No: SYM/10631/20-HRD Dated: 20.04.2021

1. Name of the Society / Organisation under whose auspices the Event was organized: Kongu Engineering College

2 Title/Name of the Event:

National Conference on Contaminate and Pollutant Management (ConCPM 2021)

3 Period:

T CI IOU.	From			То	
Date	Month	Year	Date	Month	Year
22	04	2021	23	04	2021

4. Grant Sanctioned: Rs. <u>25000</u> (Rupees <u>Twenty Five Thousand</u>)

5. Certified that out of Total Expenditure of Rs. 25000 (Rupees Twenty Five Thousand) CSIR Grant of Rs. 25000 (Rupees Twenty Five Thousand) has been utilized as per the

details given helow.

S. No.	Budget Head	Amount (Rs)
j. No.	Travel expenses for	-
1	c. Senior scientists:	
	d. Young Scientists:	
Ii	Registration Fee Waiver	
	c. Senior scientists:	
	d. Young Scientists:	
Iii	Promotion (web site, brochures, others)	7915
Iv	Secretarial assistance	15500
V	Local Hospitality	1585
vi	Venue Charges	-
	TOTAL	25000

Certified by: (PL ENSURE ALL SIGNATURES ARE ON THIS PAGE ONLY)

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**Head of Organisation** 

4/6

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Name:

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Name: Dr. V. BALUSAMY

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