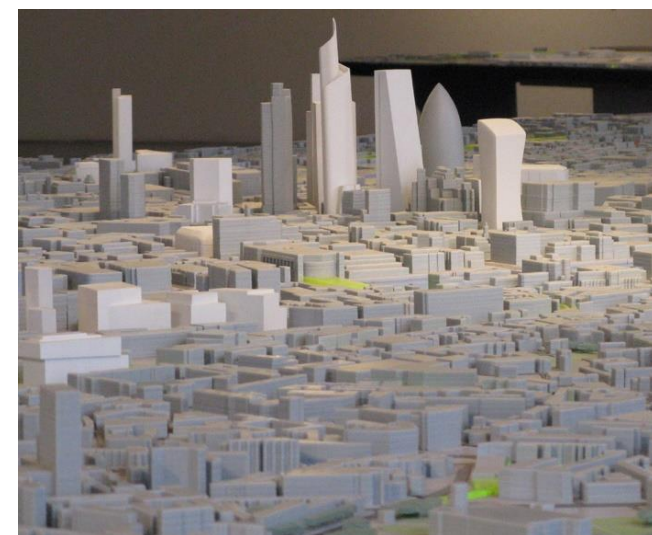


'BARRIERS: AIR POLLUTION DISPERSION AROUND EXISTING INFRASTRUCTURE'

THURSDAY 25TH APRIL 2019

2019 WEBINAR SERIES

AIR POLLUTION MITIGATION USING PASSIVE TECHNIQUES IN THE BUILT ENVIRONMENT: SHARING INTERNATIONAL BEST PRACTICE



GREEN INFRASTRUCTURE, SOLID BARRIERS AND URBAN DESIGN

DELVING INTO PASSIVE TECHNIQUES FOR AIR POLLUTION MITIGATION

OVERVIEW OF THIS WEBINAR

INTRODUCTIONS

PROF. PRASHANT KUMAR
UNIVERSITY OF SURREY, UNITED KINGDOM

PROF. AKULA VENKATRAM
UNIVERSITY OF CALIFORNIA, RIVERSIDE, USA

PROF. AONGHUS McNABOLA
Trinity College Dublin, Ireland

WEBINAR TALKS

“PASSIVE POLLUTION BARRIERS: HEDGES AND TREES IN OPEN-ROADSIDE ENVIRONMENTS”

“THE IMPACT OF BUILDINGS AND ROADS ON DISPERSION OF VEHICLE EMISSIONS:
MODELS INFORMED BY EXPERIMENTAL FINDINGS”

“THE PASSIVE CONTROL OF URBAN AIR POLLUTION USING SOLID BARRIERS:
10 YEARS ON, WHERE DO WE STAND?”

Q&A AND PANEL DISCUSSION



MAY/JUNE WEBINARS & CLOSING COMMENTS

30 TH MAY	GREEN INFRASTRUCTURE: THEIR ROLE IN AIR POLLUTION ABATEMENT
27 TH JUNE	URBAN DESIGN: INFORMING CHANGE THROUGH ADVANCEMENTS IN MODELLING

INTRODUCTIONS

0-5

WEBINAR TALKS

5-55

Q&A AND PANEL
DISCUSSION

55-70

MAY & JUNE
WEBINARS

70-75

CLOSING COMMENTS
/ WHAT NEXT?

DELVING INTO PASSIVE TECHNIQUES FOR AIR POLLUTION MITIGATION

INTRODUCTIONS

WHY WE HAVE ORGANISED THIS WEBINAR?

PASSIVE AIR POLLUTION MITIGATION IS A VERY **ACTIVE FIELD OF RESEARCH** INTERNATIONALLY, BUT COMMUNICATION ACROSS COUNTRIES/CONTINENTS IS SOMEWHAT LIMITED.

THERE IS A NEED TO **SHARE FINDINGS ACROSS DISCIPLINES AND RESEARCH FIELDS,** AND **ENGAGE WITH DIFFERENT STAKEHOLDER GROUPS** TO DELIVER HEALTHIER URBAN GREEN SPACES.

THIS WEBINAR SERIES AIMS TO PROMOTE THE SHARING OF **BEST PRACTICES** AND **ENHANCE COLLABORATIONS** TO IMPROVE CLEANER AIR IN THE BUILT ENVIRONMENT.



DELVING INTO PASSIVE TECHNIQUES FOR AIR POLLUTION MITIGATION

INTRODUCTIONS

WEBINAR SPEAKERS AND TITLES

CHAIR: PROF. PRASHANT KUMAR, UNIVERSITY OF SURREY, UNITED KINGDOM



**“PASSIVE POLLUTION BARRIERS:
HEDGES AND TREES IN OPEN-ROADSIDE ENVIRONMENTS”**



PROF AKULA VENKATRAM, UNIVERSITY OF CALIFORNIA, RIVERSIDE, USA

**“THE IMPACT OF BUILDINGS AND ROADS ON DISPERSION OF VEHICLE EMISSIONS:
MODELS INFORMED BY EXPERIMENTAL FINDINGS”**

PROF. AONGHUS MCNABOLA, TRINITY COLLEGE DUBLIN, IRELAND



**“THE PASSIVE CONTROL OF URBAN AIR POLLUTION USING SOLID BARRIERS:
10 YEARS ON, WHERE DO WE STAND?”**

DELVING INTO PASSIVE TECHNIQUES FOR AIR POLLUTION MITIGATION

PROGRAMME TALKS

“PASSIVE POLLUTION BARRIERS: HEDGES AND TREES IN OPEN-ROADSIDE ENVIRONMENTS”

ASST. PROF. PRASHANT KUMAR
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PROF. KUMAR IS DIRECTOR OF (GCARE) AND CHAIR IN AIR QUALITY AND HEALTH AT THE UNIVERSITY OF SURREY, UK. HIS RESEARCH FOCUSES ON THE INTERFACES OF CLEAN AIR ENGINEERING/SCIENCE, HUMAN HEALTH AND SMART/SUSTAINABLE LIVING IN CITIES, BUILDING ON EXPERTISE OF PARTICLE FORMATION AND EMISSION SOURCES. PRASHANT REGULARLY ACTS AS AN ADVISOR TO LOCAL, NATIONAL AND INTERNATIONAL AGENCIES TO PROVIDE INNOVATIVE TECHNOLOGICAL AND PASSIVE SOLUTIONS (E.G. GREEN INFRASTRUCTURE) FOR AIR POLLUTION EXPOSURE CONTROL IN THE BUILT ENVIRONMENT.

DELVING INTO PASSIVE TECHNIQUES FOR AIR POLLUTION MITIGATION

PROGRAMME TALKS

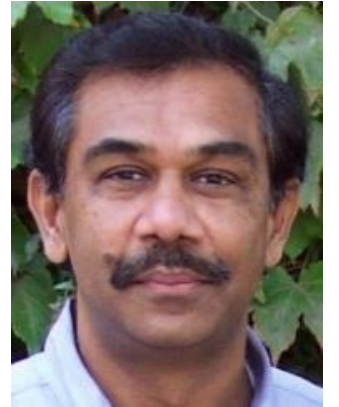
PRASHANT'S PRESENTATION

DELVING INTO PASSIVE TECHNIQUES FOR AIR POLLUTION MITIGATION

PROGRAMME TALKS

“THE IMPACT OF BUILDINGS AND ROADS ON DISPERSION OF VEHICLE EMISSIONS: MODELS INFORMED BY EXPERIMENTAL FINDINGS”

PROF. AKULA VENKATRAM
UNIVERSITY OF CALIFORNIA, RIVERSIDE, USA



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PROF. VENKATRAM HAS OVER 40 YEARS' EXPERIENCE IN DEVELOPING AND APPLYING AIR POLLUTION MODELS. HIS RESEARCH INTERESTS INCLUDE URBAN BOUNDARY LAYER, MICROMETEOROLOGY, AND URBAN AIR POLLUTION. HIS RESEARCH ON MODELLING AIR QUALITY IMPACTS OF TRANSPORT RELATED EMISSIONS HAS ADVANCED MOBILE SOURCE EMISSIONS. HE HAS ALSO INVOLVED IN SEVERAL PROJECTS RELATING TO PASSIVE MITIGATION OF AIR POLLUTION. AKULA WAS INVOLVED IN THE DEVELOPMENT OF AERMOD, AND WAS A PRINCIPAL CONTRIBUTOR TO RLINE, THE USEPA MODEL FOR LINE SOURCES.

DELVING INTO PASSIVE TECHNIQUES FOR AIR POLLUTION MITIGATION
PROGRAMME TALKS

AKULA'S PRESENTATION

DELVING INTO PASSIVE TECHNIQUES FOR AIR POLLUTION MITIGATION

PROGRAMME TALKS

“THE PASSIVE CONTROL OF URBAN AIR POLLUTION USING SOLID BARRIERS: 10 YEARS ON, WHERE DO WE STAND?”

ASSOC. PROF. AONGHUS MCNABOLA
TRINITY COLLEGE DUBLIN, IRELAND



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DR. MCNABOLA IS AN ASSOCIATE PROFESSOR IN ENERGY AND THE ENVIRONMENT IN THE SCHOOL OF ENGINEERING AT TRINITY COLLEGE DUBLIN. HIS RESEARCH INTERESTS LIE IN THE FIELD OF ENVIRONMENTAL FLUID DYNAMICS WHERE HE HAS APPLIED THIS EXPERTISE IN AIR POLLUTION, ENERGY EFFICIENCY AND/OR WATER SERVICES SECTORS. HIS EXPERTISE IN SOLID BARRIER RESEARCH FOR PASSIVE AIR POLLUTION MITIGATION HAS LED TO HIS INVOLVEMENT IN SUCCESSFULLY FUNDED EUROPEAN RESEARCH PROJECTS, WHICH DEMONSTRATE AND PROVIDE GUIDANCE OF THE MITIGATION TECHNIQUES.

DELVING INTO PASSIVE TECHNIQUES FOR AIR POLLUTION MITIGATION
PROGRAMME TALKS

AONGHUS'S PRESENTATION

DELVING INTO PASSIVE TECHNIQUES FOR AIR POLLUTION MITIGATION

Q&A AND PANEL DISCUSSION

Q&A FROM AUDIENCE

10 MINUTES

@ENVDRJOHNG

#PASSIVEAIRPOLLUTIONMITIGATION



#GREENINFRASTRUCTURE

#SOLIDBARRIERS

#URBANDSIGN

DELVING INTO PASSIVE TECHNIQUES FOR AIR POLLUTION MITIGATION MAY & JUNE BRIEFINGS

SPRING/SUMMER WEBINAR SERIES



THURSDAY 30TH MAY

**“GREEN INFRASTRUCTURE:
THEIR ROLE IN AIR POLLUTION ABATEMENT”**

THURSDAY 27TH JUNE



**“URBAN DESIGN: INFORMING CHANGE
THROUGH ADVANCEMENTS IN MODELLING”**

DELVING INTO PASSIVE TECHNIQUES FOR AIR POLLUTION MITIGATION
THURSDAY 30TH MAY

“GREEN INFRASTRUCTURE: THEIR ROLE IN AIR POLLUTION ABATEMENT”

CHAIR: DR. RICHARD BALDAUF

**“EXPLORING GREEN INFRASTRUCTURE AIR QUALITY IMPACTS
AS PART OF SUSTAINABLE URBAN DESIGN”**



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SE**

DR. SARA JANHÄLL

**“DEPOSITION AND DISPERSION – INTERACTION
BETWEEN VEGETATION AND PARTICLE AIR
POLLUTION”**



DR. DAVID NOWAK

**“THE ROLE OF URBAN TREES IN MITIGATING AIR
POLLUTION”**

DELVING INTO PASSIVE TECHNIQUES FOR AIR POLLUTION MITIGATION
THURSDAY 27TH JUNE

“URBAN DESIGN: INFORMING CHANGE THROUGH ADVANCEMENTS IN MODELLING”

CHAIR: DR. STIJN JANSSEN

**“AIR QUALITY MODELLING FOR POLICY SUPPORT:
AN EFFICIENT WAY TO EXPLORE OPTIONS FOR URBAN PLANNING”**



DR. VLAD ISAKOV

**“REAL-TIME MODELLING OF TRAFFIC-RELATED
AIR POLLUTION AT URBAN SCALES”**



DR. VERA RODRIGUES

**“HOW CFD MODELLING CAN INFORM GREEN
INFRASTRUCTURE’S ROLE FOR IMPROVING AIR
QUALITY IN URBAN SPACES”**

DELVING INTO PASSIVE TECHNIQUES FOR AIR POLLUTION MITIGATION

CLOSING COMMENTS / WHAT NEXT?

KEY POINTS FROM TODAY

CREATING A COMMUNITY IN THIS SPACE OF AIR POLLUTION MITIGATION

www.ResearchGate.net/project/2019-Webinar-Series-Passive-Air-Pollution-Mitigation

MORE INFORMATION FROM THIS WEBINAR AND FURTHER WEBINARS IN THE SERIES

www.tcd.ie/CivilEng/Air-Pollution-Webinar-Series/

REGISTERING FOR FUTURE WEBINARS

https://Passive_Air_Pollution_Mitigation.eventbrite.com

CONTACT US DIRECTLY WITH ANY QUERIES, REQUESTS OR FURTHER INFORMATION:

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