

AETN Airport Energy Technologies Network

A wide-angle photograph of an airport runway. An airplane is captured in mid-air, having just taken off or about to land. The runway is dark asphalt with white center and edge markings. The sky is a vibrant blue with scattered white and grey clouds. In the distance, a range of mountains is visible on the horizon.

Air Transport Research Workshop
University of Lincoln
School of Engineering
8th and 9th September 2011



WELCOME
Prof Paul Stewart
Pro Vice Chancellor Research
University of Lincoln

AETN  Loughborough
University





Engineering at Lincoln University



- First purpose-built UK University Engineering Facility for more than 20 years
- State-of-the-art education and research facility located on the main campus of the University.
- First-phase completed in Summer 2011.

- Founded in 2009 in close collaboration with Siemens Industrial Turbomachinery
- £37m development with support from HEFCE
- Part funded by the European Regional Development Fund (ERDF) and Lincolnshire County Council (LCC).





Airport Energy Technologies Network (AETN)

- Funded by EPSRC Grant **EP/H003150/2**
- Network Director: Professor Paul Stewart – University of Lincoln
- Co-Investigator: Dr Tim Ryley – University of Loughborough
- Network runs to December 2012
- Output of Research Councils Energy Programme Sandpit Nov 2008

AETN founding members

Swansea University
University of Cambridge
University of Nottingham
University of Leeds
Northumbria University
University of Southampton
Loughborough University
University of Leeds
Imperial College London
University of Reading
City University
Cranfield University
UCL
University of Bath
University of Liverpool
MMU
De Montfort University
University of Sheffield
Brunel University
Airbus
MMU (OMEGA)
Smith Industries
DfT
Manchester Airport
Arup
BAA
Unique
Aviation Environmental Federation Fraport
Transport Research Lab (TRL)
EADS Corporate Research Organisation
National Air Traffic Services

EPSRC Sandpit November 2008



Day 1 – 8th September 2011

Current research activity in the AETN Network

Workshop themes:
Day 1 – current activities
Day 2 – future collaborative activities

10.30 Arrival and coffee

- 11.00-11.30 Introduction and welcome – Prof Paul Stewart
11.30-12.00 *Energy and indoor environmental control of airport buildings*
12.00-12.30 *Environmental investment toolkit*
12.30-13.00 *Surface access and environmental change*

AETN project reports

Lunch and networking

- 14.00-14.30 *Changing airflow over the airfield (baffles)*
14.30-15.00 *Energy recovery from landing aircraft*
15.00-15.30 *EU FP7 Multibody Advanced Airship for Transport*
MAAT Project – Prof Paul Stewart

Report on new FP7 airship project

Coffee and networking

- 16.30-17.00 **AETN meeting roundup**
Transportation Research Board paper/Energies Journal special issue
Website/Blog/JiscMail - Dr Tim Ryley/Prof Paul Stewart
Dealing with airports and data collection
Climate change mitigation vs. adaptation

Planned publications

Project logistics and philosophy

Workshop agenda Sept 8th 2011

Forming Future Collaborative Research

10.00-10.30 **Arrival and coffee**

10.30-11.00 Roundup and intro – Dr Tim Ryley/Prof Paul Stewart

11.00-11.30 *Integrating and automating airport operations*
11.30-12.30 *Improvements in Airport Operations by Enhanced Runway Sequencing and Pushback Time Allocation* – Professor Edmund Burke, University of Nottingham

Lunch and networking

13.30-14.00 Social network research - Prof Shaun Lawson, University of Lincoln

14.00-15.30 EU FP7 Transport (Including avionics) Call - Prof Paul Stewart

Coffee and networking

15.45-close Collaborative Research Round Table - Paul/Tim Effective trans-disciplinary working – Paul Chan

Invited talk

Future collaboration

Engaging with FP7 Transport Programme
• Europe 2020
• Flightpath 2050

Search 

Aug 28 2011 EPSRC AETN Workshop – Sustainable Air Travel, Behaviour Change and Social Media.

 AETN Activities, Airport Energy Technologies Network, Uncategorized

No Responses »

18th May 2011 Think Tank, School of Engineering, University of Lincoln
Download the event flyer here This workshop, hosted by the School of Engineering at the University of Lincoln and co-organised by members of the Lincoln Social Computing (LISC), will be centred on sustainable air travel, behaviour change and social media. Confirmed speakers include: • [...]

Posted by Prof Paul Stewart at 9:13 am Tagged with: AETN, Airport Energy Technologies Network, Behaviour Change, Dr Shaun Lawson, Dr Tim Ryley, EPSRC, EPSRC Research Network, Prof Paul Stewart, Professor Paul Stewart, Social Media, Sustainable Air Travel, University of Loughborough

Aug 27 2011 AETN PhD Students Research Workshop 2010

 AETN Activities, Airport Energy Technologies Network, Uncategorized

No Responses »

As part of the Airport Energy Technologies Network, we run a series of PhD workshops. These are run by PhD students for PhD students. It provides the opportunity for young researchers to meet with their peers who have similar research interests, but who may be working in very different disciplines. Loughborough University hosted the first PhD for [...]

energy research institute website

- AETN Airport Energy Technologies Network Website of the EPSRC funded Airport Energy Technologies Network
- energy research institute energy institute home page

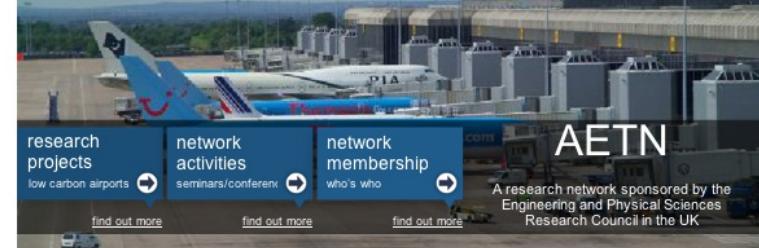
Energy Researchers

- email: Prof Paul Stewart Prof Paul Stewart's contact email
- Professor Paul Stewart LinkedIn biographical information

Categories

- Airport Energy Technologies Network (5)
 - AETN Activities (3)
 - Energy Recovery from Landing Aircraft (1)
- Airports and the Environment 2010 Conference (1)
- Electric and Hybrid Vehicles (1)
- Journals (3)
 - Energies (3)
- Research Projects (1)
 - MAAT Multibody Advanced Airship for Transportation (1)
- Uncategorized (2)

Airport Energy Technologies Network



AETN

A research network sponsored by the Engineering and Physical Sciences Research Council in the UK

Background

The EPSRC funded Airport Energy Technologies Network (AETN) was founded in 2008 to develop the low carbon energy research community and its links with the key industrial and commercial players in the Airport, Airline and Aeronautical industries. The Network participants are conducting research projects which represent high value to commerce and industry in terms of energy efficiency, reduced emissions, and compliance with future operating practices and legislation. The core requirement of AETN membership is the generation of

Home
Research Projects
Network Activities

Aeronautics and air transport research

Members of the network address

About AETN

AETN Directors

AETN Director
Professor Paul Stewart
Pro Vice Chancellor Research
The University of Lincoln,
Lincoln LN6 7ER, UK
Email: pstewart@lincoln.ac.uk

Web: energy-institute.eu/AETN

Logged in as: pstewart@lincoln.ac.uk (Owner)

JISCMAIL 

List Management | List Moderation | Subscriber's Corner | Email Lists | JISCmail Tools | [Tutorial Mode](#) | [Edit Page](#)

[Preferences](#) | [Log Out](#)

 [AEROENERGYTECH Home Page](#)

AEROENERGYTECH@JISCMAIL.AC.UK

[Options](#) [Subscribe or Unsubscribe](#) [Post New Message](#) [Newsletter Templates](#) [Log Out](#) [Change Password](#)

JISC Advance Services

-  [JISC DigitalMedia](#)
-  [JISC Infonet](#)
-  [JISC Legal](#)
-  [JISC Netskills](#)
-  [JISC Procureweb](#)
-  [JISC Techdis](#)

Latest Messages

Test2	David Waugh < daugh@LINCOLN.AC.UK >	Fri, 1 Apr 2011 12:36:12 +0100
Test	Denise Bateman < dbateman@LINCOLN.AC.UK >	Fri, 1 Apr 2011 11:50:39 +0100

AEROENERGYTECH

Airport Energy Technology Network List [Hide Latest Messages](#)

This is the list to facilitate communication and collaboration between the members of the EPSRC (Engineering and Physical Sciences Research Council) Airport Energy Technologies Network (AETN).

AETN Website

- April 2011

LISTSERV Archives

JISCmail Tools

-  [Calendars](#) | [help](#)
-  [Discussion Room](#) | [help](#)
-  [Files Area](#) | [help](#)
-  [Make a Meeting](#) | [help](#)
-  [Surveys](#) | [help](#)

RSS Feeds and Sharing

-  [RSS 1.0 feed](#)
-  [RSS 2.0 feed](#)
-  [Atom feed](#)
-  [Bookmark/Share](#)

JISC.ac.uk

Dissemination tools for the Network

AETN  Loughborough University


UNIVERSITY OF LINCOLN

Sustainable air travel, behaviour change and social media.

A one day workshop organised by the EPSRC Airport Energy Technologies Network.

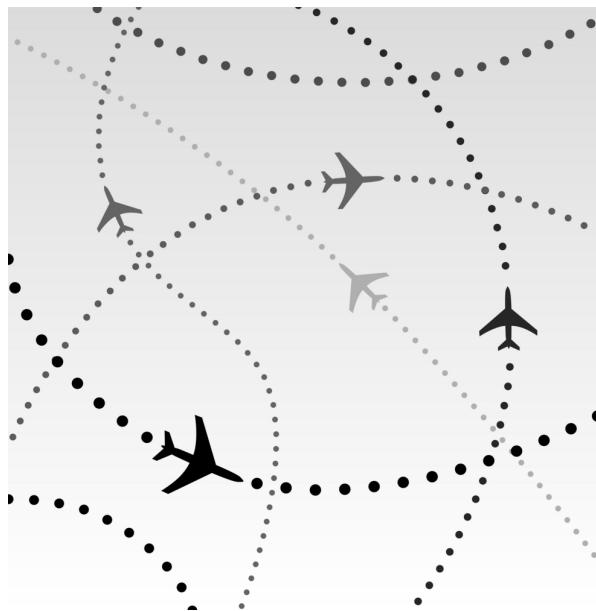
18th May 2011, University of Lincoln.

Online social media sites, such as Facebook, give us hitherto unachievable insight in to what our friends collectively think and do – it is perhaps unsurprising that social media has been suggested as a powerful platform to deliver behaviour change interventions based on social norms and peer pressure. Emerging research has demonstrated this potential in applications such as domestic energy consumption, fitness and diet.

This workshop aims to summarise the state-of-the-art in using OSNs and social media to facilitate behaviour change and will explore the potential of using such technology to deliver sustainable behaviour change in the context of the air-travel industry. The seminar will reveal research already in progress aimed at using OSNs to deliver behaviour change interventions in both domestic and organisational settings and explore issues pertinent to the air-travel industry such as transport to and from airports, passenger attitudes to air travel, airlines and destinations, public attitudes to air freight and sustainable food consumption, energy usage in airports and international and multi-cultural agendas.

The seminar will be hosted by the School of Engineering at the University of Lincoln and co-organised by members of the Lincoln Social Computing (LiSC) Research Centre who are research leaders in the design of social media interventions for positive behaviour change. Speakers at the workshop will include those already engaged in delivering behaviour change interventions using ICT and social media across a number of societal issues. Confirmed speakers include Prof Mark Blythe, Professor of Interdisciplinary Design from Northumbria University, Dr Tim Ryley from Loughborough University and co-investigator on the Airport Energy Technologies Network, Dr Parisa Eslambolchilar from Swansea University and co-investigator on the EPSRC CHARM project, and Dr Charles Musselwhite from the Centre of Transport and Society at the University of the West of England.

For further details please contact Denise Bateman dbateman@lincoln.ac.uk or Prof Shaun Lawson slawson@lincoln.ac.uk
This event is organised by the Airport Energy Technology Network (www.aeroenergytech.co.uk).



All your friends ...

.. just tagged you as an all too frequent flyer. OMG?

 5 hours ago · Like · Comment · Share



UNIVERSITY OF
LINCOLN

EPSRC



UNIVERSITY OF
LINCOLN

Recent meetings

AETN  **Loughborough
University**

Presentations

Eleni Rapti

Centre for Transport Studies
University College London

Narudh Cheramakara

Dept. Civil and Building Engineering
University of Loughborough

Muhammad Waseem Ahmad

Dept. Civil and Building Engineering
University of Loughborough

Vivian Liang

School of Mechanical Aerospace and Civil
Engineering (MACE)
University of Manchester

Stefan Ravizza

School of Computer Science
University of Nottingham

Stefan Velikov

Department of Aircraft Engineering
School of Engineering, Cranfield University

Tom Budd

Dept. Civil and Building Engineering
University of Loughborough

Airport Environmental Investment Toolkit

*Corporate Social Responsibility and Financial
Performance in the Airport Industry*

Airport Behavioural Change

*Valuation of Aviation Externalities - A case
study in Thailand*

Integration of active and passive indoor thermal environment control systems to minimise the carbon footprint of airport buildings

*Model predictive control of integrated energy
systems for airport terminals*

Airport Environmental Investment Toolkit

*Exploring the Decision-Making Process for
Environmental Investment in Airport
Operations*

Integrating and Automating Airport Operations

Ground Movement at Airports

Baffles Project

Wind tunnel Modelling

Airport Behavioural Change

*The impact of low-cost carriers on passenger
behaviour in the UK*



Objectives

- Safer
- Greener
- Smarter

transport systems for Europe that will

- benefit citizens
- respect the environment
- increase the competitiveness of European industries in the global market.

Mitigate the negative impacts and consequences of increased mobility in relation to the

- environment
- energy usage
- safety and security
- Public health

FP7-AERONAUTICS and AIR TRANSPORT (AAT)-2012-RTD-1

Budget: € 136 040 000

FP7- SUSTAINABLE SURFACE TRANSPORT (SST)-2012-RTD-1 including European Green Cars Initiative

Budget: € 114 040 000



Emphasis will be given to the following activities

Aeronautics and air transport

- reduction of emissions
- work on engines and alternative fuels
- air traffic management
- safety aspects of air transport
- environmentally efficient aviation

Sustainable surface transport

- rail, road and waterborne
- development of clean and efficient engines and power trains
- reducing the impact of transport on climate change
- inter-modal regional and national transport
- clean and safe vehicles
- infrastructure construction and maintenance
- integrative architectures

Late breaking news....

Title of the project proposal:

**POLLUTANT EMISSIONS
REDUCTION OF IWT VESSELS ON
DANUBE CORRIDOR**

Acronym -IDA

KVD – University of Zilina, Slovak Republic,

CMT - Center of Maritime Technologies e.V.,
Germany;

CIDAUT - Research and Development Center in
Transport & Energy, Spain;

BDB- Bundesverbant der Deutschen
BINNERNSCHIFFAHRT , Germany;

FOM - Institute for Logistics and Service
Management, Germany;

EDINNA – Education in Inland Navigation
Association, Netherlands;

DAS – University of Technology and
Economics, Hungary;

Legend:

UCV- University of Craiova, Romania;

VIA- via Donau, Austria;

STC – STC Group, Netherlands;

UoL – University of Lincoln, United
Kingdom;

UoS – University of Sussex, United
Kingdom;

BDI- Brodarski Institute, Croatia;

UB- University of Belgrade, Serbia;

UM- University of Montenegro,
Montenegro;

CER- Ceronav, Romania;

ISL – Institute for Shipping Economic and
Logistics, Germany;

ETNA - "European Transport NCP Alliance"
-FP7 Transport briefing Brussels



THANK YOU !!

- **Delegates**
- **Speakers**
- **AETN Administrator: Denise Bateman**