The main goal of the Young Researchers' School (YRS) is to provide graduate students with an opportunity to better understand the spectrum of challenges that underpin sustainable development. By assembling these young scientists together for an intensive two-week workshop, the school fosters the growth of a network of sustainability scholars and professionals in the Asia-Pacific region.

Below are the lectures of the 2016 YRS at TERI University, New Delhi, India on 1-12 February, 2016. The theme in 2016 was **'Sustainable Energy for Transforming Lives: Availability, Accessibility, Affordability**. For reports on the programme click <u>here</u>.

The programme provided specific knowledge regarding the theme energy. There were plenty of opportunities for research skills development, including research communication skills through activities such as the 3-minute thesis competition and the <u>Our World</u> workshop. The aim was to help students frame their research in a simplified manner and thus reach broader audiences. There was much interaction among participants and resource persons through group activities and field trips, that provided the context and content for students to develop a research proposal looking at how different policies and projects can be interlinked and provide integrative solutions for various sustainability challenges. A core team of 4-5 resource persons participated in the entire programme, to coordinate activities, facilitate group work sessions and take the responsibility of any decisions during the delivery of the researchers' school.

Photos can be found on facebook.

Watch this video on the latest YRS.

1 February 2016

Time	Activity	Presenter
9:30-10:00	Opening	Rajiv Seth, Acting Vice
	CeremonyWelcome	Chancellor, TERI
	remarks	UniversityMario Tabucanon,
		UNU-IAS
10:00-10:45	Keynote Address /	Ajay Mathur, D.G Bureau of
	talks by eminent	Energy efficiency
	speakers on energy	(TBC)Upendra Tripathi,
		Secretary, Ministry of New
		and Renewable Energy
		(MNRE) Arun Kansal

11:00-12:30 Panel discussion – Chair: Amit Kumar, Dean, Sustainable energy for Distance and Short-term transforming lives Education Programme, TERI University Panelists: Raghunath Mahapatra, Vice President, Strategy, Welspun EnergyP. C. Mathani, Director, MNREDebajit Palit, Associate Director, Renewables and Environment, TERIDisha Banerjee, Director, Policy and Communication, Smart Power India Mario Tabucanon, UNU-13:30-14:00 Programme Introduction IASFawzia Tarannum 14:00-15:30 Movie I on Energy Use TERI and TU, Mario Efficiency/Conservation Tabucanon, UNU-IAS and Discussion 15:45-17:15 Movie II: Let there be TERI and TU, Mario Light on Energy Use Tabucanon, UNU-IAS Efficiency/Conservation and Discussion

2 February 2016

Time	Activity	Presenter
09:15-10:45	Lecture 1: Linking	Ritu Mathur, Director, Green
	energy crisis with	Growth and Resource
	Climate Change	Efficiency, TERI
11:00-12:30	Lecture 2: Energy	Anil Kumar Jain, Advisor, NITI
	security- global and	(National Institution for
	local challenges	Transforming India)Aayog,
		Government of India
14:00-15:30	Lecture 3: Energy	Martand Shardul,
	accessibility and	Associate Fellow Social
	socio-economic	Transformation, TERI
	impact	

15:45-17:15 Lecture 4: Energy Debajit Palit, Associate efficient stoves and Director, Renewables and lighting a billion lives Environment, TERI initiative of TERI

Lecture summaries by students:

Lecture 1: Linking the energy crisis with climate change by Haitham Alkhalaf

<u>Lecture 2: Energy security – global and local challenges</u>

Lecture 3: Energy Accessibility and socio-economic impact by Haixing Meng

Lecture 4: Energy efficient stoves and lighting a billion lives initiative by TERI by Mazlina Zaira Mohammad

Related movies:

It's high time

Jeevika - Bihar Rural Livelihoods Project

Keonjhar cooking stove film: Let's build the future we want

Clean Cooking stoves

Know Your Goals Campaign

SDSN

3 February

TERI Campus in Gawal Pahari & National Institute of Solar Energy (NISE)

Time	Activity	Presenter
09:30	Departure	
10:30-11:00	Welcome and opening	Amit Kumar, Dean, Distance
	remarks - Contribution	and Short-term Education
	of TERI towards	Programme, TERI University
	sustainable energy	

11:00-13:30	Walk around TERI Campus and live demonstration of TERI's initiatives Solar Lanterns Solar water heaters Photovoltaic panels Biomass Gasifier Underground earth tunnels Energy- efficient lighting Waste-water recycling Biogas Plant	Suresh, Facility Manager TERI, Gawal Pahari, N. K. Ram, Fellow, TERI, Alekhya Datta, Associate Fellow, TERI
15:00-16:30 17:30 -18:30 4 February	ONational Institute of Solar Energy (NISE) Gurgaon (Govt of India's initiative)Grid and off-grid solar systems Thermal, PhotovoltaicSolar Biomass Hybrid Cold Storage Field Trip Synthesis	O. S. Sastry, Director General Mario Tabucanon, UNU-IAS

Time	Activity	Presenter
09:15-10:4	5 <u>Lecture 5: Research</u>	Siti Das, Department of Policy
	Method (Qualitative)	Studies, TERI University
11:00-12:3	0 <u>Lecture 6: Research</u>	Papiya Guha Mazumdar,
	Method (Quantitative)	Department of Policy Studies,
		TERI University
14:00-15:3	0 <u>Lecture 7: Reducing</u>	Ajay Mathur, Director
	energy intensity of the	General, Bureau of Energy
	<u>Indian economy</u>	EfficiencyRakesh Kumar
		Choudhary, Deputy Director,
		MSME

15:45-17:15 <u>Lecture 8: Energy use</u> Girish Sethi, Director, IEE, efficiency

Lecture summaries by students:

Lecture 5: Qualitative research methods

Lecture 6: Quantitative research methods by David Sparks

Lecture 7: Reducing energy intensity of the Indian economy by Ranaporn Tantiwechwuttikul

Lecture 8: Energy use efficiency

Related movies:

A unit saved is a unit earned

Ring the changes

Fueling change

Telling a complete story with qualitative and mixed methods research

5 February

Time	Activity	Presenter
09:15-10:45	<u>Lecture 9: Energy</u>	Rakesh Kacker, Director
	policy and governance and Q & A	India Habitat Centre
11:00-12:30	Lecture10: Economics	Atul Kumar, Energy
	of renewable energy and Q&A	Technology System Analysis, TERI
14:00-15:30	Research proposal development	Mario Tabucanon, UNU-IAS
15:45-17:15	Introduction to 3	Mario Tabucanon, UNU-
	minutes thesis	IASDaniel Powell, UNU-IAS
	presentation	
Lecture summar	ries by students:	

Lecture 9: Energy policy and governance by Rui Wu

Lecture 10: Economics of renewable energy by Ram Kumar Singh and Manisha Singh

6 February Field trip 2 - Ferozabad/ Agra

7 February

Activity Time

Presenter Daniel Powell, UNU-IAS

16:00-17:00 Workshop Session-Synthesis of Field Trip

8 February Field Trip 3: Visit to Chandigarh

PEDA-Punjab Energy Development Agency and Bharat Bricks Factory in Chandigarh.

9 February

Time **Activity**

09:15-10:45 Field trip synthesis

11:00-12:30 Research

Communication

14:00-15:30 Group work 1

15:45-17:153-minute thesis

practice

17:30-19:00 Group Work 2

Related movie:

Plastic to Oil Fantastic

10 February

Presenter

Christopher Doll, UNU-IAS,

Daniel Powell, UNU-IAS

Time Activity
Time Activity

09:15-10:45 Lecture 11 -

Community

Engagement and

Capacity Building to

facilitate conservation /

efficiency

11:00-12:30 Lecture 12- Waste to

energy

14:00-15:30 Group Work 3

15:45-17:15 Group work 4

Lecture summaries by students:

Presenter Soma Dutta.

ENERGIA, International Network on Gender and Sustainable Energy

Suneel Pandey, Fellow, TERI

by Meenakshi Chaudhary and Saad Faruqui

Lecture 12: Waste to energy by Sourabh Manuja

Related movies:

A Bright Solution- Solar Sister (2012)

Cadence Mid-Kiln Technology for Mixing Alternative fuel with Mixing Air

How a waste-to-energy plant works

Landfill Methane Powers People's Homes

Macpresse - Valencia Spain Algimia SCT

Tech Kiosk by Kopernik- Making Simple, Life-changing Technology Available Across Indonesia

11 February

Time Activity

09:15-10:45 Life after PhD

Presenter

Cristina Rumbaitis, Action on Climate TodayPreeti Agarwal, VIOM NetworksPooja Arora, TERIChristopher Doll, UNU-IAS

11:00-12:30 Group work 5 14:00-15:30 3-minute thesis exercise

15:45-17:15 Group work 6

12 February

Time Activity

09:15-10:45 Summary of lectures and evaluation

11:00-12:303-minutes thesis competition final

14:00-15:30 Research Proposal presentation and Discussions

15:45-17:15 Research Proposal presentation and Discussions

Evening Gala Dinner