



**The Abdus Salam  
International Centre for Theoretical Physics**



**1962-31**

**Joint ICTP-IAEA School of Nuclear Knowledge Management**

*1 - 5 September 2008*

**World Nuclear University Summer Institute 2008**

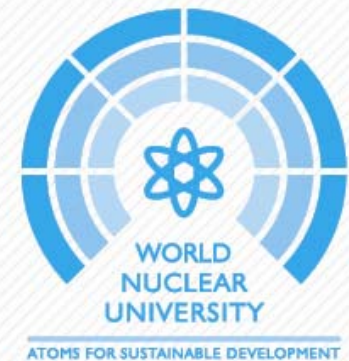
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London  
SW1Y 4JH  
U.K.*

2008 School of NKM

The 4<sup>th</sup> Annual  
WNU Summer Institute  
Ottawa, Canada  
5 July - 15 August 2008

Madiba Saidy

**Sept. 5, 2008**  
**Trieste, Italy**



# WNU Summer Institute Programme

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A leadership training programme  
Gathering as many young professionals as possible  
from as many Countries as possible

Tackling the main nuclear issues  
&  
Building lasting bonds

Inputs:

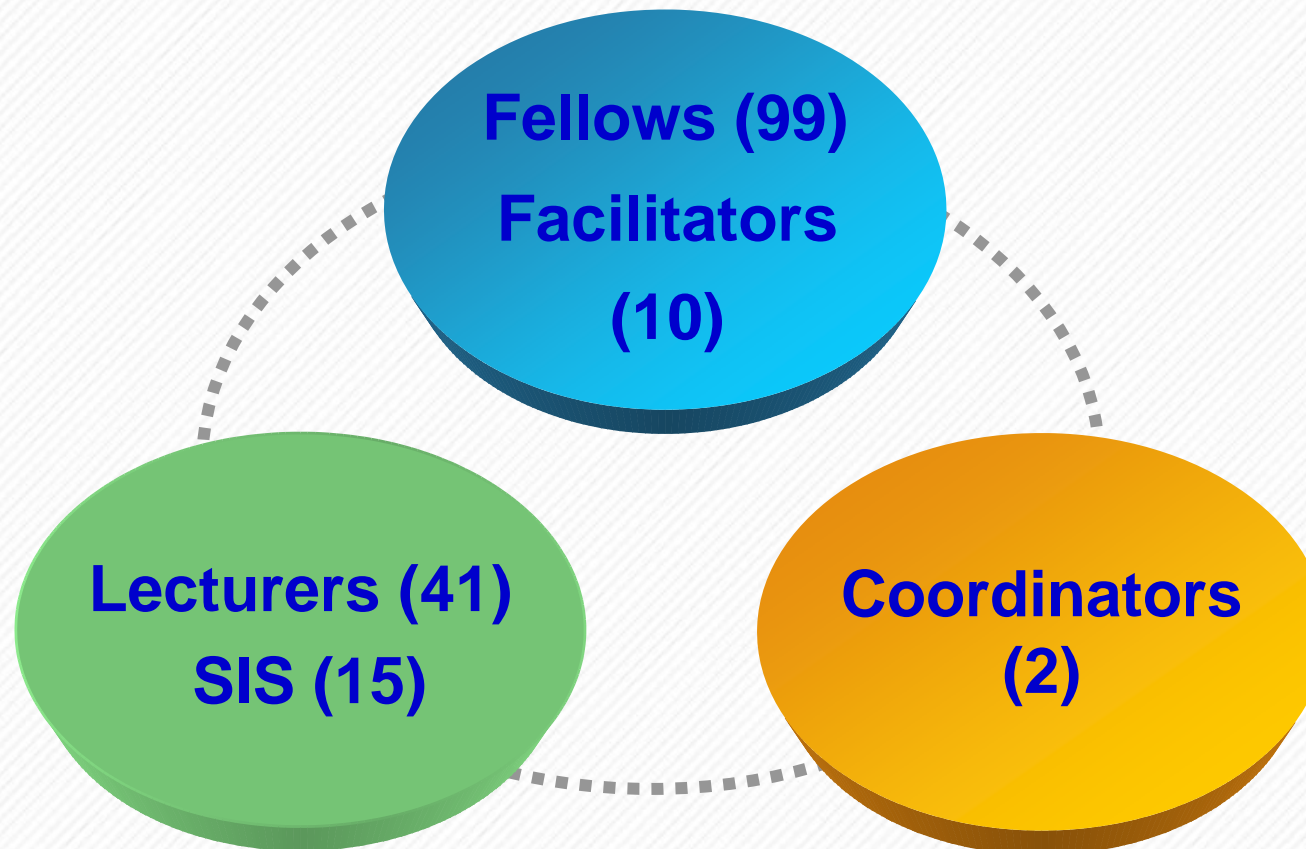
Lecturers & Special Invited 'Distinguished' Speakers



# Participants

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**Number of participants: 168**



# Participants - continued

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## ■ **Fellows**

- Master's degree in science, engineering, business or law; or reactor operator's licence; knowledge of nuclear fundamentals; under 35

## ■ **Facilitators (Mentors)**

- International group of highly experienced academic and industry leaders

## ■ **Lecturers**

- Leading world experts in their field

## ■ **Special Invited 'Distinguished' Speakers**

- Internationally-known figures who have contributed (continue to contribute) significantly to the peaceful uses of nuclear energy



# Fellows

## ■ 99 Fellows from 36 countries

- Africa (6), Americas (34), Asia (18), Europe (41)
- 97 Professionals + 2 Ph.D.Students
- 25 Female + 74 Male
- 72 Ph.D./M.Sc. + 7 MBA/LL.M. + 20 B.Sc.

## ■ Funding Support

- Employer - 85
- IAEA - 14

## ■ Average Age

- 32



# Facilitators (Mentors)

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## ■ 10 Facilitators from 8 countries

### ■ Americas (3)

- Bill GARLAND (Canada)
- Alan WALTAR & Gil BROWN (USA)

### ■ Asia (2)

- Toshio Konishi (Japan)
- Young-Soo EUN (South Korea)

### ■ Europe (5)

- Annick CARNINO & Jean-Louis NIGON (France)
- Adrian HAM (UK)
- Radek SKODA (Czech Republic)
- Sergey RUCHKIN (Russia)



# Lecturers (41)

## Africa (1), Americas (15), Asia (2) & Europe (23)

Robert SCHOCK	WEC	Dominique DELATTRE	IAEA
Romney DUFFEY	AECL	Javier REIG	OECD
Jean PALUTIKOF	IPCC	Jeffrey MERRIFIELD	ex-NRC
Graham CAMPBELL	NRCan	Robert BUDNITZ	LBNL
Toshiya NANAHARA	CRIEPI	Luc MAMPAEY	WANO
Ramesh SADHANKAR	AECL	Charles PACKER	ex-OPG
Bertrand BARRÉ	AREVA	Julia SCHWARTZ	OECD/NEA
John VALLIANT	McMaster U.	Wolfram TONHAUSER	IAEA
Gabi VOIGT	IAEA	Adrian HAM	ex-NIA
Scott MELBYE	Cameco Inc.	Abel GONZALEZ	ICRP
Bob STEANE	Cameco	Sylvain St PIERRE	WNA
Jacques BOUCHARD	CEA	Laura ROCKWOOD	IAEA
John McNAMARA	NIA	Richard STRATFORD	US State Dept.
Phillip FINCK	INL	Amb. Abdallah BAALI	Algeria
Patrice BERNARD	AREVA	John KINNEY	IAEA
Charles McCOMBIE	ITC	Bruno PELLAUD	ex-IAEA
Tom ISAACS	LLNL	Anne STARZ	IAEA
Michele LARAIA	IAEA	Ilham AL-QARADAWI	Qatar U.
Michel HARTENSTEIN	WNTI	David GILCHRIST	ENEL
Ann BISCONTI	BR, Inc.	Yanko YANEV	IAEA
Scott PETERSON	NEI		





# Special Invited Speakers (15)

John RITCH	WNA
Patrick MOORE	Greenspirit Strategies
Luis ECHAVARRI	OECD/NEA
Andrei GAGARINSKIY	Kurchatov Institute
Duncan HAWTHORNE	Bruce Power
Gerald GRANDEY	Cameco
Gary LUNN	NRCan
Philippe PRADEL	CEA
Dale KLEIN	US NRC
Michael BINDER	CNSC
Andy WHITE	GE
Laurent STRICKER	EdF
Andrew KLEIN	INL
David TORGERSON	AECL



# WNU Summer Institute Format

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## The Morning Lectures: Global Insights & Issues



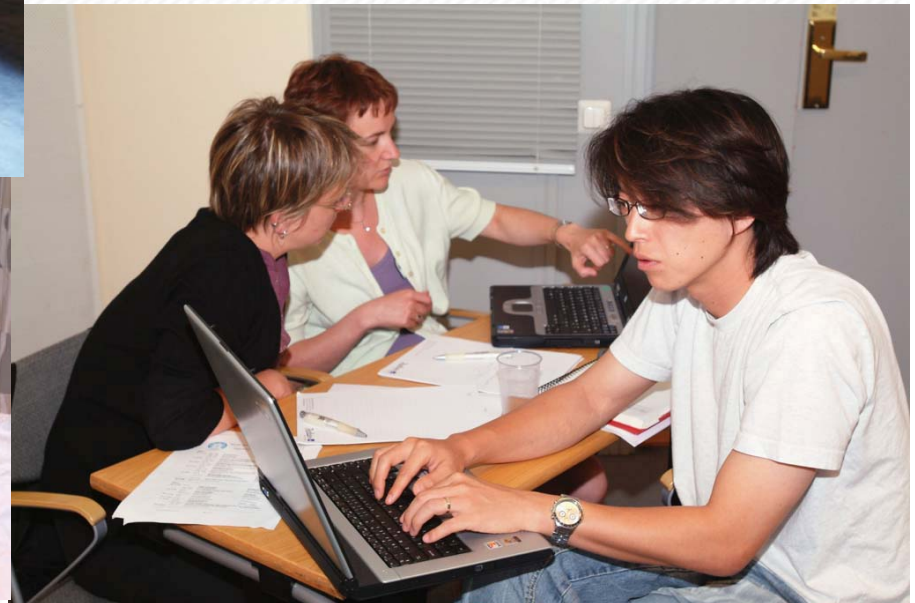
# WNU Summer Institute Format

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The heart of the Summer Institute:  
The Working Group activities



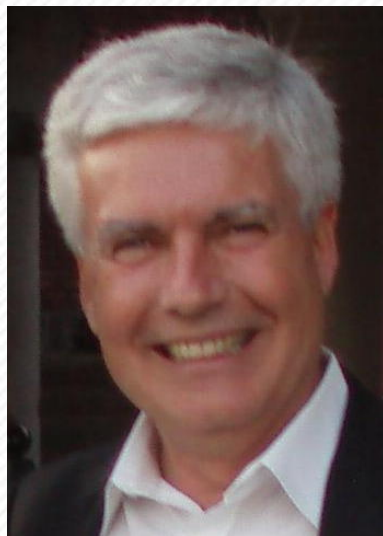
**Animated by  
Facilitators  
(Mentors)**



# WNU Summer Institute Format

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## The " Organizers "



Philippe

&



Madiba



# WNU Summer Institute Format

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Toshio



Young



Annick



Alan



Adrian



Sergey



Radek



Jean-Louis



Gil



Bill

The "Facilitators"



# WNU Summer Institute Format

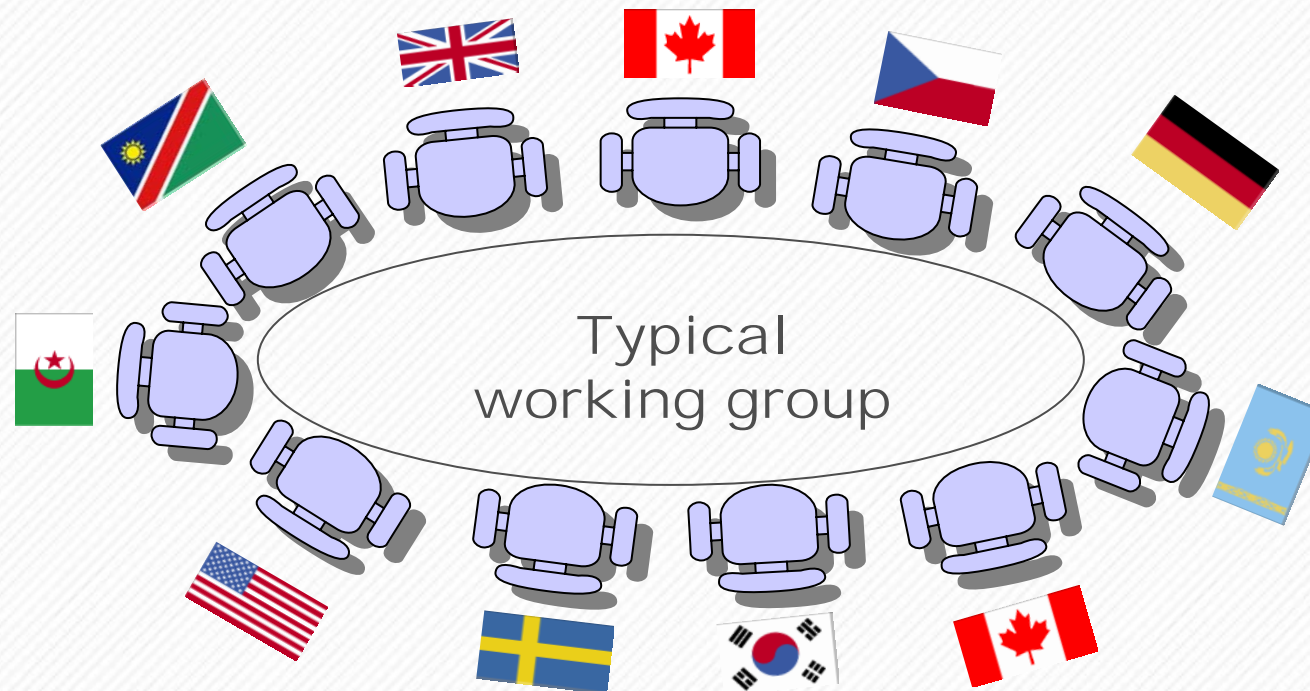
Facilitator's role

**Listening without judgement**

**Questioning for clarification**

**Challenging for results**

**Helping for organizing the teamwork**



# WNU Summer Institute Format

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Lecturer's role



**Point out the main issues**

**Give the necessary insights**

**Suggest case studies or questions to be discussed during the working group sessions**

**The Lecturers are not supposed to “teach”**



# WNU Summer Institute Format

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Special Invited 'Distinguished' Speaker's role

**Free hand on the choice of the subject**

**Can be about their Companies, their vision of the future, leadership, or any other "big picture" issue of interest**

**Interaction with the Fellows MOST welcome during the presentation AND during lunch/dinner**





# Lectures:

## Topics relevant to the future of nuclear technology

- **Global Setting**

- Energy demand and supply, climate change, global emission reduction, nuclear technology in sustainable development, public acceptance, and key socio-political issues and trends

- **International Regimes**

- Safety standards and global safety culture, security, non-proliferation and safeguards, radiological protection, decommissioning, waste management, nuclear transport, and nuclear law

# Lectures:

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## Topics relevant to the future of nuclear technology

- **Technology Innovation**

- Advanced fuel cycle, next-generation reactors, hydrogen economy, waste management, desalination and non-nuclear technologies

- **Nuclear Industry Operations**

- Knowledge management, industry economics, risk assessment, fuel market, operational excellence and public communication



# Forum Issues:

## **Final Projects on Global Issues**

1. Options for storing radioactive waste
2. Advantages and disadvantages of fuel reprocessing
3. Issues in initiating or expanding the use of nuclear power
4. New paradigm for reducing the possibility of further nuclear weapons development while expanding the use of nuclear power
5. The role of nuclear technology in addressing global warming
6. Strategies for counteracting the general public's fear of nuclear technology
7. Nuclear investment
8. Nuclear education and training - developing and maintaining the nuclear workforce

# Technical Tours

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## ■ Fuel Cycle Facilities

- Cameco – Port Hope Conversion

## ■ Nuclear Research Facilities

- AECL – Chalk River Laboratories
- AECL – Sheridan Park

## ■ Components Manufacturing

- Babcock & Wilcox – Cambridge

## ■ Nuclear Power Plant - CANDU

- OPG – Darlington Nuclear Power Plant



# Social Activities

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## Welcome Reception – Opening Ceremony

- National Capital Region Orientation Tours & Cisco Bluesfest
- Barbeque Dinner - National Arts Centre (WiN Canada)
- Niagara Falls - Sheraton on the Falls
- Toronto - Sheraton Centre Toronto & Dinner at CN Tower
- Reception & Dinner at Casa Loma, Toronto
- Wilderness Tours Cabins - Whitewater rafting, canoeing, hiking, swimming, bungee jumping
- Ottawa River Dinner Cruise (live band)
- Montreal - Four Points by Sheraton

## Farewell Dinner – Graduation Ceremony



# Improving the SI Programme

[wnu.engineering.uottawa.ca](http://wnu.engineering.uottawa.ca) or [wnu.genie.uottawa.ca](http://wnu.genie.uottawa.ca)

## A S S E S S M E N T S

Lectures

After each Lecture

SI programme

At the end of the SI



WNUCC SI Organization team



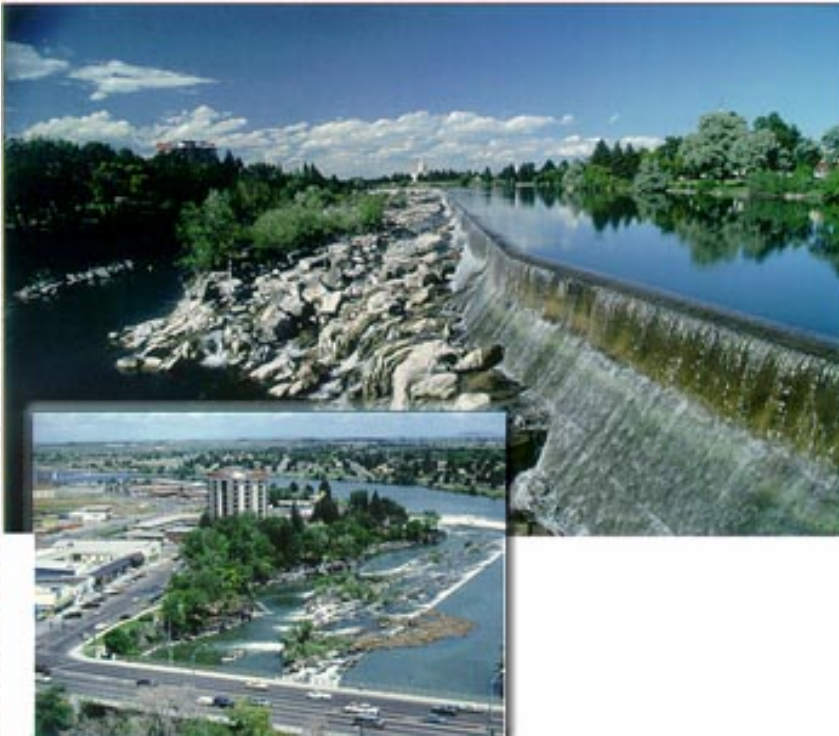
Next Summer Institute



# The 2005 Summer Institute

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Idaho Falls  
Idaho - USA



77 Fellows  
33 Countries



# The 2006 Summer Institute

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Stockholm  
Sweden



89 Fellows  
34 Countries





# The 2007 Summer Institute

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102 Fellows  
35 Countries



Daejeon  
Korea



# The 2008 Summer Institute

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99 Fellows  
36 Countries



Ottawa  
Canada



# The 2005-2006-2007-2008 SI



4 Summer Institutes

367 Fellows  
58 Countries



# The 2005-2006-2007-2008 SI

## 58 Countries

Argentina – Armenia – Belgium – Brazil – Bulgaria – Canada –  
China – Czech – Egypt – Finland – France – Germany – Hungary –  
India – Indonesia – Japan – Korea – Lithuania – Mexico –  
Netherlands – Pakistan – Romania – Russia – Slovak – Slovenia –  
South Africa – Spain – Sweden – Switzerland – Turkey – Ukraine –  
UK – USA

Iran – Turkey – Egypt – Indonesia –

Austria – Belarus – Italy – Philippines

Algeria – Australia – Bangladesh – Chile – Croatia – Estonia –  
Georgia – Israel – Kazakhstan – Kyrgyz Rep. – Malaysia – Namibia  
– Nigeria – Qatar – Tanzania – Thailand – Vietnam



## SI Fellows' Countries

Countries operating NPP	33
Countries without NPP, but underway	4
Countries Stopped, suspended or cancelled NPP	4
Countries without ongoing NPP Programme	17
	<hr/>
	58



# The 2005-2006-2007-2008 SI

280 Fellows  
sent by their Company

87 Fellows supported  
by the IAEA



# Hosts

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CNS, NRCan & UNENE



Thank you for your attention

