

INTERNATIONAL TRAINING WORKSHOP
ON
USE OF ANALYTICAL & MODELING TOOLS
TAILORED TO COUNTRY NEEDS

April 6-7, 2022
(A VIRTUAL EVENT)

ORGANISED BY

	<p>ACADEMY OF SCIENTIFIC RESEARCH AND TECHNOLOGY (ASRT) CAIRO, EGYPT</p>
	<p>CENTRE FOR SCIENCE & TECHNOLOGY OF THE NON-ALIGNED AND OTHER DEVELOPING COUNTRIES (NAM S&T CENTRE) NEW DELHI, INDIA</p>

Introduction

The world has become so interconnected that issues and concerns are no longer a single country problem; they have global characteristics that affect the world in a holistic manner. Global issues are very complex as well as interconnected and no individual discipline can claim to offer a total solution. Hence, there is the need for system analysis as well as analytical & modeling tools. Analytical and modeling tools are quantitative methods and are used to answer a specific question or make a specific design decision. Different analytical models are used to address different aspects of the system, such as its performance, reliability and other parameters. System analysis also provides scientific insights into policy matters in the scientific world.

In systems analysis, the main goal is not the mere understanding of a problem; rather, it is predicting the sequence of events that may occur, and suggesting scenarios to reach the optimum outcomes towards a solution. Analytical tools and models are being developed to support scientists, technologists and decision makers, bringing insights into complex problems of the real world, and their interconnectivity. They address complex global issues such as environmental pollution, climate change, sustainable development, water scarcity as well as economic stability. They also help in achieving Sustainable Development Goals (SDG).

Analytical tools provide decision makers with reliable information on how different aspects of a system will behave in different scenarios and settings. These tools range from simple methods to complex models. The type of tool to utilize is determined by the nature of the problem being addressed. Analytical tools and models should be able to give objective assessments of the problem at hand. If the model is used correctly, it will allow for better informed decision-making. In addition, use of a correct tool will allow the evaluation of multiple scenarios and will support efforts to reach optimal conclusions. In brief, systems analysis is a very powerful tool that can adapt to meet the specific complexity of each subject. It has the flexibility to shift perspectives and has the ability to tackle complex issues resulting from the rapidly changing and linked world.

To keep abreast of the growing significance of analytical and modeling tools in scientific research and technology, to deliberate upon the need of country specific adaptations of these tools, and to impart skills and knowledge on the principles and practices on the subject, the **Centre for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), New Delhi** jointly with the **Academy of Scientific Research and Technology (ASRT), Cairo, Egypt** is organizing a two days **International Training Workshop** on *'Use of Analytical and Modeling Tools Tailored to Country Needs'* during April 6-7, 2022. The Workshop will be held in *Virtual Mode*.

Objectives of the Training Workshop

The Training Workshop intends to provide basic knowledge on the subject through interactive lectures about various aspects of the use of analytical & modeling tools in scientific and technological research and explore various relevant opportunities and challenges.

Topics to be Covered

The Training Workshop will cover the following:

- Mathematical Modeling: Concepts, Techniques and Challenges for Developing Countries

- Validation of Modeling Tools
- Parametric Sensitivity
- Data Analytics
- Adaptation of Modeling Tools Towards Country Needs
- Case Studies from Scientific & Technological Research
- Case Studies from Policy Research
- Future Applications of Analytical and Modeling Tools

Important Dates

Date of the Program	April 6-7, 2022
Submission of Application Starts	February 28, 2022
Last Date for Submission of Application	March 28, 2022
Confirmation to Selected Applicants and Communication of Virtual Platform Details (Link)	April 2, 2022

Programme

A tentative program of the event is given below:

Programme (CST: GMT + 2 hrs.)	PROGRAMME STRUCTURE	
	6 April 2022	7 April 2022
10:00-10:45	Inauguration	Keynote Lecture III
10:45-11:15	Keynote Lecture I	Keynote Lecture IV
11:15 - 13:15	Technical Session I	Technical Session III
13:15 -13:30	Break	
13:30-14:00	Keynote Lecture II	Keynote Lecture V
14:00-15:30	Technical Session II	Adoption of Resolution Concluding Session

A final *Session-wise Programme* will be made available before the Workshop.

The Participants of the Virtual International Training Workshop will receive a Participation Certificate electronically.

About the Organisers

NAM S&T CENTRE

The *Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre; www.namstct.org)* is an Inter-Governmental Organisation with a Membership of 47 countries spread over Asia, Africa, Middle East and Latin America. The Centre was set up in 1989 in New Delhi, India based on decisions taken during various NAM Summits and mandated to undertake a variety of programmes, including organisation of workshops, symposiums and training courses and implementation of collaborative projects. It also offers short-term *Research Fellowships* to scientists from developing countries in association with the *Centres of Excellence* in various countries. The Centre also brings out technical books, monographs and other scientific publications in different S&T subjects of interest to developing countries. The Centre's activities provide opportunity for scientist-to-scientist contact and interactions; familiarizing participants on the latest developments and techniques in the subject areas; identification of the requirements of training and expert assistance; locating technologies for transfer between the Members and other developing countries, and dissemination of S&T information etc. In addition, the Centre encourages Academic-R&D-Industry interactions in the developing countries through its "*NAM S&T-Industry Network*".

ACADEMY OF SCIENTIFIC RESEARCH AND TECHNOLOGY (ASRT)

The *Academy of Scientific Research & Technology (ASRT, <http://www.asrt.sci.eg/>)* is a non-profit organization, established in September 1971 by the Presidential Decree No. 2405 as the national authority responsible for Science & Technology in Egypt. In 1998, ASRT was reorganized by the Presidential Decree No. 377 that defined its mission, function and activities. ASRT is the Egyptian House of Expertise. It brings together outstanding Egyptian scientists and experts from universities, research institutions, private sector, NGOs, policymakers and prominent Egyptian Scientists in Diaspora to deliberate on problems being faced by the country, propose and carry out scientific studies and create future strategic basic plans to tackle these problems. ASRT adopts a comprehensive plan for developing Egyptian S&T to support relevant national ministries and research institutions in creating an integrated system of scientific research together for increasing the number of trained scientists in Egypt, and giving science a leading role in the country's development and knowledge based economy. ASRT also promotes and encourages female and youth participation in S&T and scientific leadership.

Participants

Researchers, scientists, technocrats, innovators, government officials and policy makers, and representatives from industry and non-government organizations - who are engaged in the field of Scientific & Industrial Research and areas related to simulation and modeling are invited to participate in this Virtual Training Workshop. The combination of participants from various developing countries will allow for exchange of knowledge, ideas and experiences as well as opportunities for global networking and collaboration.

English will be the official language of the programme.

Resource Persons

The resource persons for the Training Workshop will comprise eminent experts and professionals in the relevant fields from Egypt and other developed & developing countries.

Submission of Application

Experts and scientists desirous of participating in the Training Workshop, *excepting those from Egypt*, are required to submit their application **electronically** to the NAM S&T Centre (namstcentre@gmail.com) as early as possible, latest by **25th March 2022**.

Applicants from Egypt should, however, submit their requests directly to ASRT, Egypt.

The following documents must be submitted as e-mail attachments:

- a) Filled in Nomination Form (Blank form **enclosed**)
- b) Opinion (a short paragraph; **in MS-Word format**) how you qualify to participate in the Training Workshop
- c) A short CV (**maximum two pages; in MS-Word format**) [Format **Enclosed**]
- d) **An Extended Abstract** (in MS-Word only) of the Paper that would be presented at the Training Workshop

Note: The documents at (ii), (iii) and (iv) above must be in **MS-Word format** only; PDF or image files will not be accepted. Hard copies of the Application Form and the above attachments are NOT REQUIRED to be submitted.

Presentation of Papers

Delegates / Participants are expected to present a Country Status Report and / or a research/ scientific paper on any of the themes appropriate to the Training Workshop.

Selection of Applicants

Selection of applicants will be made based on their academic and professional background. Successful applicants will be electronically informed about their selection by **2 April 2022**.

The details about the virtual platform that will be used for the Training Workshop and *log-in details* for joining the program will also be communicated to the selected applicants. Other details and terms & conditions for the participation of scientists from various countries will be given to the individual candidates on receipt of their applications.

CONTACT DETAILS

NAM S&T CENTRE

Dr. Amitava Bandopadhyay

Director General,

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(NAM S&T Centre)

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ASRT, EGYPT

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Website: www.asrt.sci.eg

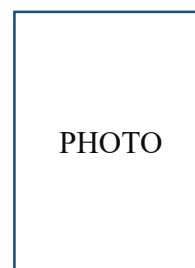
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APPLICATION FORM

PLEASE TYPE OR USE BLOCK CAPITALS (NO COLUMN SHOULD BE LEFT BLANK)



SECTION –A (*To be filled in by the Nominee*)

1. First Name (Prof. /Dr. /Mr. /Mrs. /Ms.):
Middle Name: Last Name:
2. Father's / Spouse Name:
3. Designation (Position held):
4. Nationality:
5. Date of Birth:
Place of Birth (City) (Country).....
6. Name of the Parent Institution (Employer):
7. Full Address (Office):
.....
.....
Phone: Fax:
E-mail:
Full Address (Home):
.....
Home: Mobile:
Fax: E-mail:
8. Educational Qualifications:
Highest Degree: Year of Award:
University:
Field of Study.....

9. Brief Biodata (CV):

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(Maximum two pages in MS Word only; to be attached on a separate sheet as per the attached format)

- 10. A Write-up (in MS-Word format only) on what qualifies you to attend the Workshop
- 11. An Extended Abstract (in MS-Word only) of the Paper that would be presented at the Workshop

Date:

Signature:

SECTION –B: ENDORSEMENT BY THE NOMINATING AUTHORITY

(The Applicant in a member country of the NAM S&T Centre must get the Nomination Form endorsed by the Focal Point of the Centre in his/her country if he/she wishes to take advantages extended to the official nominee of the country. For the list of member countries and names/ addresses of the Focal Points please visit the Centre’s official website; www.namstct.org.)

Signature:

Name (in full):

Designation:

Date:

SEAL

Enclosures:

- 1) A Brief CV (maximum two pages, as per **attached** format; in MS Word only)
- 2) An Opinion (in MS-Word format only) on what qualifies you to attend the Workshop
- 3) An Extended Abstract (in MS-Word only) of the Paper that would be presented at the Workshop

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CURRICULUM VITAE

1. Personal Details:

Name: (Prof./Dr./Mr./Mrs./Ms.)

Designation: Position Title

Present Employer: Full Address (Office)

City/State/Province:

Country:

Nationality:

Date of Birth: dd/mm/yyyy

Proficiency in English Language:

Permanent Address: Full Address (Home)

Gender:

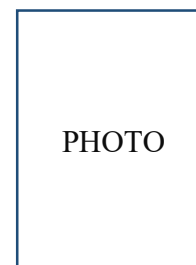
Contact: Mobile:

Telephone Office:

E-mail:

Alternative e-mail:

Fax:



2. Academic Qualifications: In chronological order

Qualification Awarded Degree/Diploma/Certificate	Major Subject	University/ Institution	Year (From-To)

3. Professional Experience: In chronological order

Organisation/ Institution	Position Title	Year (From-To)	Nature of duties

Total number of years of relevant experience –

4. Research Experience: In chronological order

Research Title	Duration	Status

5. Administrative Experience: Not more than 100 words

6. Experience with respect to the title of the Workshop:

7. Details of Awards/Recognitions (if any):

8. Any other information: Not more than 50 words

9. Recent Publications: Only five recent publications to be mentioned
