

1) Workshops: The first regional workshop after trenching for IGCP 740 West Makran Paleo-tsunami Investigation 30th Nov. 2023



The first regional workshop after trenching for IGCP 740 West Makran Paleo-tsunami Investigation Tsunami and Earthquake Research Center -University of Hormozgan

Date and Time: 30th of November 2023 9 AM UTC
Lectured by Dr. Siddharth P. Prizomwala, ISR, India
Chair Dr. Mohammad Mokhtari

Introduction

The MSZ is a vital component of the Northern Arabian Sea in terms of the hazards it can generate. In the historical past, it has generated several major earthquakes, some of which have also been associated with catastrophic landslides, such as the 1945 event. The hazard along the MSZ needs the urgent attention of seismologists, geophysicists, and geologists to unearth the remnants of past activity, so as to visualize the futuristic hazard it can generate. Such an exercise would aid the coastal communities of Iran, Pakistan, India, Oman, and UAE in better planning and managing the vital assets along the shorelines.

Proposed audience.

1. Scientists and faculty members
2. Doctoral and master's students
3. Community leaders, society representatives, Government and Non-Governmental Organization representatives.

Organizers:

TERC, University of Hormozgan, Contact persons: Dr. Mohammad Mokhtari and Dr. Mehdi Masoodi
UNESCO International Geoscience program (IGCP) secretariat

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Joining The Workshop using the following zoom link kindly provided by IGCP UNESCO

<https://us02web.zoom.us/j/81209108512?pwd=Z0NQeUlwOUhXMG1HZU5QTUpRdVhVZz09>

Meeting ID: 812 0910 8512

Password: 647296

Agenda:

Title	Time	Speaker
Opening Remarks IGCP's support for IGCP 740 project UNESCAP Project in NWIO and its importance	09-09:20	Dr. Özlem Adiyaman Lopes IGCP Director Ms. Nora Gale Programme Specialist/IOTWSM
IGCP 740 project a general review and challenges	09:20-09:30	Dr. Mohammad Mokhtari Chair of NWIO-WG-IOC/IGC, Leader of IGCP 740
Need for more palaeotsunami research along Iranian, Pakistani, and Indian shorelines: Hazard along MSZ	09:30-10:30	Dr. Siddharth Prizomwala ISR, India, and Co-Leader of the IGCP 740
Preliminary observations from the first field visit along the Iranian shoreline for extreme wave events	10:30-10:55	Dr. Chintan Vedpathak Institute of Seismological Research, India
Questions and discussion	10:55-11:30	All participants Dr. Medi Masoodi TERC and Co-Leader of the IGCP 740

Zoom 회의

Dr. Mohammad Mokhtar NWIO-IGCP의 회원을 보고 있습니다

Eunhee Lee (UNESCO) Nora Gale (UNESCO-IOC) Jörn Lauterjung (GFZ) Sobhi Nasir Bernardo Allaga

0:01:30 10:28 AM

Paleo-tsunami

- ❖ The zone's sole confirmed tsunami, in 1945, resulted from the rupture of less than a quarter of the subduction zone's length. The earthquake and tsunami potential of the rest is unknown. The Paleo-tsunami studies will throw light on such important unknown factors.
- ❖ Paleo-tsunami is on the high priority list of the works to be conducted at MSZ. Especially the recent PTHA development for the MSZ has again requested these data in order to possibly cover the lacking events for recurrence period dating.
- ❖ The proposed project will investigate the relationship between great earthquakes and associated tsunamis in Makran subduction zone, the duration of the tsunami recurrence.

Next slide

The project procedure

- Collection of local historical data from published and documentary evidence for the region.
- The collection for tracking
- Development of Standard Operating Procedure
- Development and design activities
- Software & Technology needed in the mission
- Design & Development activities of software inputs from members
- Implementation of results & Reporting

No Notes.

Slide 3 of 7

Zoom 회의

Chintan Vedpathak의 회원을 보고 있습니다

Eunhee Lee (UNESCO) Dr. Mohammad Mokhtar NWIO-IGCP의 회원을 보고 있습니다 siddharth prizomwala Ocal Necmioglu (UNESCO) Amin Rashidi Chintan Vedpathak

Preliminary observations from the first field visit along the Iranian shoreline for extreme wave events

Dr. Chintan Vedpathak
Project Scientist
Institute of Seismological Research, Gandhinagar

IGCP 740: Western Makran paleo-tsunami investigation

참가자(24)

- Eunhee Lee (U... (호스트, 나)
- Chintan Vedpathak
- siddharth prizomwala
- IOC/TSR Denis CHANG SENG
- Amin Rashidi
- Bernardo Allaga
- Chinmoyee Borgohain
- Christian Haberland GFZ Germa...
- Dr. Mohammad Mokhtar NWIO

UNESCO IGCP meeting

사용자 수신지: Dr. Mohamma... (DM) 7:11 PM

Ocal from IOC has a question.

Sobhi Nasir님의 이름

Ghazala Naeem 7:13 PM

Thank you Siddharth for a wonderful presentation.

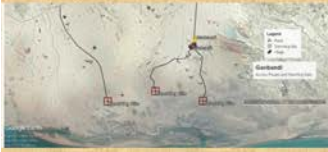
Harald Spahn, Germany님의 이름

귀하의 메시지를 볼 수 있는 사람은 누구입니까? 기록이 꺼져 있음

수신지: Dr. Mohammad Mokhtar NWIO... (DM)

UNESCO IGCP meeting에게 메시지 보내기

STUDYING TSUNAMI SEDIMENT



Remote Sensing

Satellite and aerial images can provide a bird's-eye view of the effects of a tsunami over a large area, and can help identify areas where tsunami sediment is likely to be found. This can be particularly useful in areas that are difficult to access.

1

Sampling Techniques

Techniques to collect and analyze tsunami sediment, including coring, sieving, and chemical analysis. These methods can provide information about the sediment's composition, age, and location.



2



Micropaleontology

By examining microfossils in tsunami sediment, scientists can learn more about the timing and magnitude of past tsunamis, and can even identify tsunamis from thousands of years ago. This can be particularly useful in areas where there are no written records of tsunamis.

3

Geochemical Analysis

By analyzing the chemical composition of tsunami sediment, scientists can learn more about the source of the sediment, and can track the movement of water and debris during the tsunami. This can provide insights into the nature of the tsunami, and can help with hazard assessment.



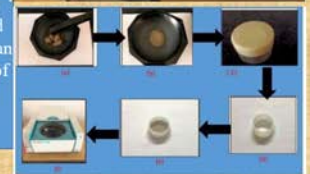
4



Dating Method (OSL)

To obtain Chronological Event

5



SITE 1 GABRIK

- Depth of trench- 80 cm
- Sand layer from top 28 cm and thickness 7cm
- Collected 2 OSL samples
- 10 samples for Geochemical

