



INTERNATIONAL DAM SAFETY CONFERENCE

Bhubaneswar, Odisha, India







MESSAGE

It is a great pleasure to invite renowned dam safety professionals working across the World to attend International Dam Safety Conference 2019 being organized by our Ministry in collaboration with the Government of Odisha, and the World Bank during 13-14th February 2019 in Bhubaneswar under the aegis of Dam Rehabilitation and Improvement Project.

This Conference provides an excellent platform for global networking where the agencies associated with dams right through planning, design, construction, operation and maintenance around the world come together to share their

professional experience, advancement in technology as well as emerging challenges in dam safety management. Several global organizations will be showcasing their technologies, products, and services in the exhibition during the Conference.

Come to Bhubaneswar and enjoy the culture, treasures and tastes of the beautiful city on the eastern coast of India in addition to technical events in February 2019.



U. P. Singh, IAS Secretary, MoWR, RD&GR, Government of India, New Delhi

INVITATION FROM CHAIRMAN, CWC

On behalf of the Central Water Commission, Ministry of Water Resources, RD & GR, Govt. of India, I take great pleasure to invite all the professionals associated with dam safety and related disciplines to the International Dam Safety Conference - 2019 to be held in Bhubaneswar, Odisha, India during 13-14 February 2019. The Conference program will include enlightening presentations from leading professionals in the water resources sector, an exhibition of latest technology and services and a study tour to Hirakud dam - the longest earthen dam in India and the biggest artificial lake in Asia. India ranks third globally with



over 5200 large dams in operation. Dam owners, policy makers, dam professionals, institutions, scientists, industry, etc., from within India and around the world are expected to participate in this event to share their knowledge and experience for addressing the dam safety concerns.

We look forward to your enlightening participation in the Conference

S. Masood Husain Chairman, Central Water Commission New Delhi, India

INVITATION FROM PRINCIPAL SECRETARY, GOVERNMENT OF ODISHA

Government of Odisha is delighted to host the International Dam Safety Conference - 2019 in Bhubaneswar, the Temple City and the Capital of Odisha. Odisha has a rich cultural heritage besides having excellent conference facilities. Bhubaneswar is a pleasant and safe city with good travel connections and com-fortable options for stay.

The conference program besides technical interactions includes an exhibition where the organizations from around the world will showcase their products. and services reflecting the contemporary developments in technology.



The participants and accompanying persons will be able to enjoy the Odisha hospitality and participate in sightseeing tours to some world heritage sites like the Sun Temple in Konark, Jagannath temple in Puri, a mighty historical structure built about millennia ago, and Chilika lake, the largest coastal lagoon in India as well as largest wintering ground for migratory birds in the Indian sub-continent. All participants would enjoy the evening concert on 13th February to get familiar with the rich culture of Odisha.

We look forward to welcoming you in Bhubaneswar.

P.K. Jena, IAS

Principal Secretary, Government of Odisha, Bhubaneswar, India

INVITATION FROM WORLD BANK

Dam safety is an important facet of the World Bank's support to its member countries, both from the perspective of disaster risk mitigation and because of dams' impact on water security in the changing climate. The World Bank partners with countries around the world on different aspects of dams.

India is home to some of the world's largest water storage and diversion infrastructure with over 5200 large dams. These structures are critical to the nation's agrarian economy and consequently livelihood and food security. The



World Bank is supporting the Government of India's Dam Rehabilitation and Improve ment Project (DRIP) which aims at repairing and rehabilitating over 223 dams in seven states of India: Jharkhand, Karnataka, Kerala, Madhya Pradesh, Odisha, Tamil Nadu, and Uttarakhand. The International Dam Safety Conference organized under the aegis of DRIP is a platform which the Bank envisaged to provide for an exchange of knowledge between academia, civil society, government, industry, policy institutes and think-tanks. This knowledge exchange will benefit Indian Dam Managers by providing them with the latest know-how, tools and technology of relevance to dam safety, and capitalize on innovations for managing dams in an effective and sustainable manner.

We welcome you to actively participate in the upcoming conference and share your valuable knowledge and experience.

I look forward to seeing you in Bhubaneswar on February 13-14, 2019.

Michael Haney Practice Manager, Water Global Practice



ABOUT THE CONFERENCE

India ranks third globally with 5264 large dams in operation and 437 large dams under construction. Central Water Commission (CWC) is coordinating and implementing the ongoing Dam Rehabilitation and Improvement Project (DRIP) with World Bank assistance to rehabilitate 223 dams in India. As part of the institutional strengthening component of DRIP, CWC is organizing the Dam Safety Conference on an annual basis. The conference brings together dam professionals and experts in the various inter-related disciplines from within India and around the world to discuss, reflect and share knowledge, technology and experience in addressing dam safety issues.

The International Dam Safety Conference - 2019 is a part of the series of Dam Safety Conferences organized earlier in Chennai (2015), Bengaluru (2016), Roorkee (2017), and Thiruvananthapuram (2018). All these conferences received an overwhelming response in terms of participation by Indian and overseas professionals and organizations.

CWC in collaboration with Odisha Water Resources Department and the World Bank is organizing the International Dam Safety Conference - 2019 during 13-14 February 2019 in Bhubaneswar, Odisha. The conference will have one Plenary Session, seven Technical Sessions, and one Industry Session. There will be valuable presentations during the Plenary Session by eminent dam safety professionals. Several oral presentations are planned during the Technical Sessions which will cover various facets of dam safety. National and overseas organizations will showcase contemporary developments in technologies, construction materials, products, instrumentation, and services in an exhibition to be organized at the Conference. Several international organizations of repute including the International Commission on Large Dams (ICOLD) as well as various National Committees on Large Dams have agreed to be the Organizing Partners for this Conference.







HIGHLIGHTS OF PREVIOUS DAM SAFETY CONFERENCES

The response to earlier four Dam Safety Conferences organized in the years 2015 (Chennai, Tamil Nadu), 2016 (Bengaluru, Karnataka), 2017 (Roorkee, Uttarakhand), and 2018 (Thiruvananthapuram, Kerala) was overwhelming in terms of professional participation by Indian and overseas organizations.

562 delegates including 60 foreign delegates coming from 18 countries attended the International Dam Safety Conference - 2018 organized during 23-24 January 2018. 140 technical papers were received and 26 Indian and overseas exhibitors showcased their technology, products, and services in the exhibition organized during the Conference. Several experts of international repute presented theme papers in the Plenary and Technical Sessions and contributed to the deliberations. Also the feedback about the last conference from some of the renouned experts given below.



The organisation of the International Dam Safety Conference in India with a significant national and international impact is a highly appreciated initiative. Thus, the International Commission on Large Dams (ICOLD) is pleased to be official organizing partner for the next edition in February 2019. Personally, I'm already looking forward to participate again.

Schleiss AntonPresident of International Commission on Large Dams (ICOLD),

Professor, EPFL, Lausanne, Switzerland

It was great pleasure and honor to be invited as the special guest, keynote speaker, and chair of the technical session at the International Dam Safety Conference - 2018. I would like to give my sincere appreciation and respect to you and Indian colleagues who have made such dedicated efforts for organizing such a successful conference. I also had great time to interact with many important Indian officials and international guests and learned a lot about the dam safety practice in India and other countries. I also enjoyed delicious dishes, great art performance and beautiful scenery.



Satoru Ueda Lead Dam Specialist, World Bank, Washington, USA



Firstly, I would like to thank you for your invitation to the International Conference on Dam Safety 2018 in Kerala. It was indeed a very unique and enriching experience and I was very pleased to meet your colleagues and other participants.

Dr. Russell Michael GUNNSenior Project Director, Dam & HEPP Expert, Head of Civil Engineering and Structures Group BG Consulting Engineers Ltd, Switzerland

I'm back to Switzerland and I really want to thank you very much that I could participate at the International Dam Safety Conference 2018 in Kovalam. It was for me a great pleasure to meet you and I'm still impressed by your hospitality and the openness that I could experience from you and your colleagues. I congratulate you to the perfect organization of the conference and to the very interesting presentations at a very high level.



Elmar Kaempfen
Chief Executive Officer, HYDRO Exploitation, Sion, Switzerland





I want to take this opportunity to thank you most sincerely for inviting me to attend the recent International Dam Safety Conference. It was very informative and I have developed a very positive understanding of the aims and objectives of the DRIP initiative and I fully support the entire thrust of the work by the Dam Safety Rehabilitation Directorate. I hope that my contribution to this important event met your expectations.

Dr. Des HartfordPrincipal Engineering Scientist, Dam Safety, BC Hydro Burnaby, Canada

It has been a quite satisfying experience for me to contribute on behalf of ICID at the International Dam Safety Conference 2018 (IDSC 2018) organized by DRIP of CWC at Thiruvananthapuram in January 2018.







IDSC Conference in Kerala was technically very sound and the overall level was world class, touching cutting edge topics. Moreover, it was quite charming and you made all of us feel fantastic. Sincere thanks and congrats, see you no doubt next year!

Dr. Ignacio Escuder-BuenoProfesor Titular de Universidad, Universidad Politecnica de Valencia (UPV)
Founding Partner, iPresas, President, Spanish National Committee on Large Dams Valencia. Spain

It was the important occasion (International Dam Safety Conference - 2018) for all the participants to share information on the dam safety efficiently. I clearly understand Indian organizations and persons concerned on the theme are working to meet the issues deeply and practically. All are having the interest in getting related information through international communication such as ICOLD. As participants from JWA, I appreciate your consideration on invitation from Japan. I would like to share the information on this conference among colleagues in Japan too.



Hideshi Sasahara

Director. International Affairs Division, Water Resources Engineering Department Japan Water Agency (JWA) Saitama City, Japan



Without saying, it was quite excellently organized for all participants. I feel two-day conference was appropriate, not too long and too short. All the presentations on dam rehabilitation were quite interesting and practical including exhibitions. I was able to feel high level of interest on dam management in India from the line-up of VIPs.

Tatsuo Kunieda Director, Japan Water Agency (JWA) Saitama City, Japan

Congratulations! Your conference was a great success, which was reflected by the large number of participants and the many companies and organisations present in the exhibition.

I also liked the fact that all speakers listed in the program were present.



Dr. Martin Wieland

Chairman, ICOLD Committee on Seismic Aspects of Dam Design, Poyry Switzerland Ltd., Zurich, Switzerland



ABOUT THE ORGANIZERS

Central Water Commission (CWC) is a premier technical Organization under the Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India. CWC is coordinating and furthering in consultation with the State Governments concerned, schemes for control, conservation, and utilization of water resources throughout the Country, for the purpose of Flood Control, Irrigation, Navigation, Drinking Water Supply and Water Power Development. Odisha Water Resources Department (OWRD) is one of the partner Implementing Agencies in the DRIP to rehabilitate 26 large dams including construction of additional spillway for the Hirakud dam. It is responsible for Integrated Water Resources Development and Management in Odisha. Besides other activities, OWRD is engaged in all matters relating to civil construction and maintenance of dam projects.

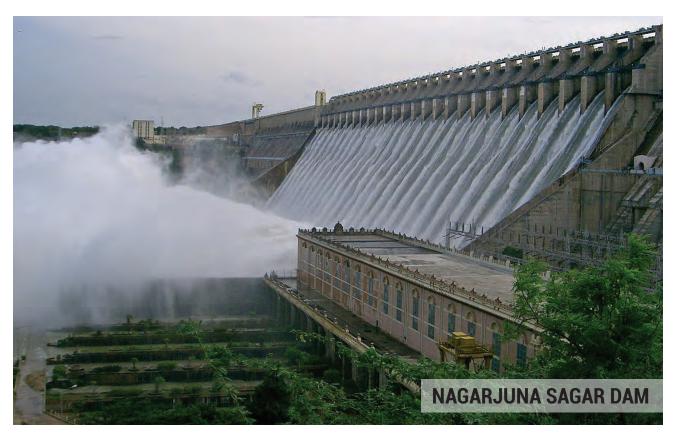
The World Bank Group provides a wide array of financial products and technical assistance with twin goals to end extreme poverty and shared prosperity. The World Bank is financing the ongoing DRIP in India. The major objectives of this ongoing DRIP are the rehabilitation of selected large dams, Capacity Building as well as Project Management.

Organizing Partners: Reputed global organizations are on board as Organizing Partners in order to facilitate efficient planning and management of the Technical Sessions and encourage participation from the world community to address the dam safety concerns of global dam professionals adequately during the Conference.











CONFERENCE VENUE



Bhubaneswar is known as temple city of India and is the State capital of Odisha. It is a centre of economic and religious importance in Eastern India and is also one of modern India's first planned cities. Bhubaneswar showcases significant sacred cultural landscape and is a confluence of Hindu, Buddhist, and Jain cultural heritage. Puri, Konark, and Bhubaneswar form the "Golden Triangle", one of eastern India's most visited destinations.

The weather in Bhubaneswar during February remains pleasant with average maximum and minimum temperatures of 28°C and 16°C. Oriya or Odia is the language spoken in Odisha even though most people speak and understand Hindi and English. Bhubaneswar is easily accessible by road, rail, and air.

The Conference will be held in the Auditorium and the Conference Hall within Central Convention Centre Complex of the Kalinga Institute of Industrial Technology (KIIT). The venue is about seven kilometers from the Bhubaneswar city centre. An Exhibition will be organise to coincide with the Conference where selected exhibitors will showcase the contemporary developments in their technologies, instruments, construction materials, products, and services related to dam safety.

REGISTRATION

Interested participants are invited to register online at our website: www.damsafety.in/idsc2019, to participate in the Conference. The last date for registration of delegates is 31 January 2019. There is no participation fee for attending the Conference. However, participants are required to make their own arrangements for their lodging, transportation, and other incidentals. The organizers will assist in finding suitable accommodation, if requested. Efforts are being made to provide limited accommodation to official delegates of DRIP Implementing Agencies and members of National Committee on Dam Safety. Owing to capacity limitations, some registrations might not be accepted; therefore, it is advised to await confirmation before making travel plans and other arrangements.



CONFERENCE INFORMATION

12 Feb. 2019

39th NCDS meeting

Sightseeing Tour-Bhubaneswar Cultural Evening Welcome Dinner

13 Feb. 2019

14 Feb. 2019

IDSC - 2019

Concert Evening
Banquet Dinner

Exhibition

Cultural Evening Farewell Dinner

POST CONFERENCE EVENTS

15 Feb. 2019

15 Feb. 2019

15 & 16 Feb. 2019

TOUR 1:

Migratory birdwatching at Chilika Lake Dhauli Shanti Stupa, Konark Sun Temple and Puri Beach

TOUR 2:

Dolphin Watching at Chilika Lake, Shree Jagannath Temple, Puri Beach and Konark Sun Temple

TOUR 3:

Hirakud dam, Maa Samaleswari Temple, Sambalpuri

EXHIBITION

Space will be made available to selected exhibitors to showcase their technologies, instruments, construction materials, products, and services related to dam safety. Organizations interested to participate in the exhibition should submit the 'Request for Exhibition' indicating the nature of display and space required, online at our website by 21 December 2018. Depending on the availability, space will be assigned; preference will be given to organizations sponsoring events or items for the Conference. The exhibition stalls will remain open after the day's sessions have ended to provide an opportunity for networking between participants and the exhibitors.







CONFERENCE SESSIONS PLAN

13 February 2019

0830-0915	Registration
0915-1100	Inauguration
1100-1115	Tea Break
1115-1300	Plenary Session: Emerging Challenges in Dam Safety Management
1300-1345	Lunch Break
1345-1530	Technical Session 1: Global Best Practices in Dam Safety Management and Governance
	Technical Session 2: Sustainable Dam and Reservoir Management
1530-1545	Tea Break
1545-1730	Industry Session: Contemporary Developments in Technology, Construction
	Materials, Products, Instrumentation, and Services

14 February 2019

Technical Session 3: Dam Health Monitoring, Data Acquisition and Processing
Technical Session 4: Operation, Maintenance and Emergency Management
Tea Break
Technical Session 5: Safety Reviews and Risk Assessment
Technical Session 6: Major Rehabilitations and Other Risk Reduction Investments
Exhibition and Poster Session
Lunch Break
Technical Session 7: DRIP Rehabilitation Case Studies
Tea Break
Exhibition and Poster Session
Valedictory Session





CONFERENCE SESSION THEMES, TOPICS AND PROPOSED ORGANIZING PARTNERS

PLENARY SESSION

Emerging Challenges in Dam Safety Management

Keynote speakers on Financial, Legal, Technical, Social, Cultural and/or Environmental challenges and how to overcome them.

ICOLD, EURCOLD, INCOLD, World Bank, ICID, CDSA

Coordinator: INCOLD

TECHNICAL SESSION 1

Global Best Practices in Dam Safety Management and Governance

Legislation and regulatory frameworks; Technical rules, guidelines and best practices; Portfolio management; Integrated flood risk management Risk Governance; Human resources and capacity building; Technological needs; Integration of policies, people and processes

ASDSO, USSD, USACE, SPANCOLD

Coordinator: SPANCOLD

TECHNICAL SESSION 2

Sustainable Dam and Reservoir Management

Water resources management challenges; Water quality and ecology; Role and benefit of dams; Optimization of reservoir operation and integrated reservoir management; Assessment and management of reservoir sedimentation; Social and environmental impact assessment and management; Trifecta: water, energy, food; Innovative technologies, knowledge application and best practices;

Deltares, SNV, Royal IHC, NGI, NORPLAN, SEDICON

Coordinator: Deltares

INDUSTRY SESSION

Contemporary Developments in Technology, Construction Materials, Products, Instrumentation, and Services

TATA Projects, Trimble, Fatra, Carpi, Mechatronics, NPEL, Delta Electronics

Coordinator: CWC

TECHNICAL SESSION 3

Dam Health Monitoring, Data Acquisition and Processing

Hydro-meteorological and seismic systems; Geotechnical, structural, hydro mechanical and communication systems; Real-time performance monitoring and analysis of data; Instrumentation for earthquake hazard assessment; Surveillance and monitoring by latest technologies (Satellite, terrestrial radar, laser based technologies); Recent advances in dam health investigations; Acquisition, effective analysis and usability of monitoring data; Data processing: Design, construction and operation;

EGIS, EDF, CNR Coordinator: EGIS



TECHNICAL SESSION 4

Operation, Maintenance and Emergency Management

Operating Rules; Maintenance procedures; Cost-benefit analysis of O&M; Resources and capacity building for O&M; Disaster and emergency management (prevention, preparedness, response and recovery); Cost-benefit analysis of Emergency Management; Resources and capacity building for Emergency Management; Integration of Operation, Maintenance and Emergency Management

AWP, ANCOLD, Entura Coordinator: AWP

TECHNICAL SESSION 5

Safety Reviews and Risk Assessment

Comprehensive dam safety reviews; Dam safety standards; Uncertainty, complexity, and ambiguity; Risk-informed assessments; Risk tolerability guidelines; Human-induced risk management; Incidents and accidents case histories; Disasters case histories

UPV-iPresas, EPFL, BC Hydro, BG Consultants, Hydro Exploitation

Coordinator: UPV-iPresas

TECHNICAL SESSION 6

Major Rehabilitations and Other Risk Reduction Investments

Foundation treatments; Structural Rehabilitation design; Refurbishment of gates; Dam rehabilitation and construction management; Re-instrumentation, enhanced monitoring and overall surveillance; Other dam safety investments; Investments outside the dam: upstream and downstream planning; Risk communication

AECOM, Alpiq SA, JWA, J-Power, NARBO

Coordinator: AECOM

TECHNICAL SESSION 7

DRIP Rehabilitation Case Studies

Dam Rehabilitation case studies of Dam Rehabilitation Programs globally including India. It may include various aspects of rehabilitation i.e. pre-rehabilitation investigations, structural rehabilitation, technical regulations, financial planning, institutional capacity building, project management, contractual challenges, etc.

CPMU-CWC, WB, DRIP IAs, DRIP Indonesia, DRIP Sri Lanka,

Coordinator: CPMU

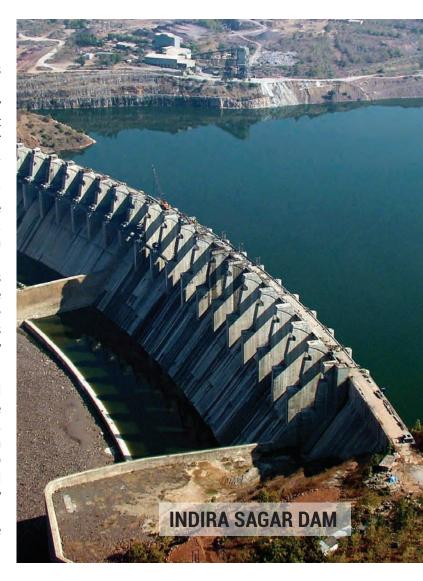
IDUKKI DAM



CALL FOR PAPERS

Technical Papers reflecting the developments in technology, materials, instrumentation, and methods including case histories of dam safety and management issues and solutions, relevant to the Session Themes and Topics are invited for presentation in the technical sessions. Full papers, including main body, figures, and tables, should not be more than 6 pages on the A4 format; Guidelines to Authors published on the website may be referred to for more details on formatting. All the papers received will be reviewed by a panel of experts for the quality of contents and their relevance to the themes of the Sessions and compliance with the Guidelines before acceptance. Authors of accepted papers will be requested to submit presentation slides. Authors of papers not included for oral presentation, may make a poster presentation of their papers.

Soft copies of all the accepted papers will be distributed to the participants during the Conference. In addition, select technical papers, after necessary editing, will be published as a compendium following the Conference. CDSO and CWC reserve the right to publish the technical papers / compendium on their websites or in any other media; therefore, consent in this regard shall be given by the Principal Author while uploading the paper.



TIMELINES

The timeline for submission and acceptance of papers is as follows:

• Full papers: 21 Dec, 2018

• Communication of accepted papers: 31 Dec, 2018

Submission of PowerPoint slides (limited to 12) for oral presentation: 10 Jan, 2019

• Communication of papers selected for oral presentation: 20 Jan, 2019



SPONSORS

No participation fee is charged from the delegates and exhibitors. The expenditure for organizing the Conference will be met by the collaborating organizations, organizing partners and the sponsors. Organizations interested in promoting the dam safety are invited to financially support this prestigious international event as sponsors; the sponsors are categorized depending on the quantum of financial support extended by them as Platinum (₹10 lakhs), Gold (₹7 lakhs), Silver (₹5 lakhs), and Bronze (₹3 lakhs). Benefits extended to the sponsoring organizations depend on the category of sponsorship and include:

- Acceptance of delegates to participate in the Conference; the number depending on the category; Platinum (4 nos), Gold (3 nos), Silver (2 nos), and Bronze (1no.)
- Presentation slot in the Industry Sessions; depending on the category; Platinum (7 min), Gold (5 min), Silver (3 min), and Bronze (no presentation slot)
- Advertisement in the Programme Booklet; full A5 size material for all sponsors but locational preference would be given in order of sponsor's category
- Suitable display of the Sponsors' names and logos on the Conference website, Conference Final Bulletin as well as other places of advertisement of Conference
- Permission to put publicity material in the Conference Kit
- Preference in the allotment of Exhibition Stalls, premium location and size depending upon sponsor's category
- Suitable publicity during the Conference, appropriate marking on the sponsored items, standees at the sponsored events etc.

MEDIA PARTNERS

Reputed media houses and other interested organizations are invited to be Media Partners for this Conference and the exhibition. In return, suitable publicity is provided for the media partners on the Conference website and during the event. Selected organizations may also participate in the exhibition and make a brief presentation of their activities and services during the Industry Session. This will be a mutually beneficial partnership where the brand and logo of the media partners will gain publicity amongst a large gathering of dam professionals, dam owning agencies and other national and international organizations involved in dam design, construction, operation, maintenance, and rehabilitation from across the world.





CULTURAL EVENTS AND TOURS

12th February 2019

Hotel Trident

- Contemporary Dance by Prince Dance Group
- Incredible Odisha by Saswat Joshi Group
- Aesthetic Dance forms of Odisha Journey: Udra to Utkal
- VandeUtkal Janani; Odissi; Sambalpuri; Chhau; Gotipua; Mahari - Devdashi







13th Febraury 2019

CRPF Campus Stadium

- Ananya Odisha by Guru Aruna Mohanty
- Odissi; Sambalpuri; Chhau; Ghumura; SahiJata

14th Febraury 2019

Hotel Crown

Live Band Dinner



15th February 2019

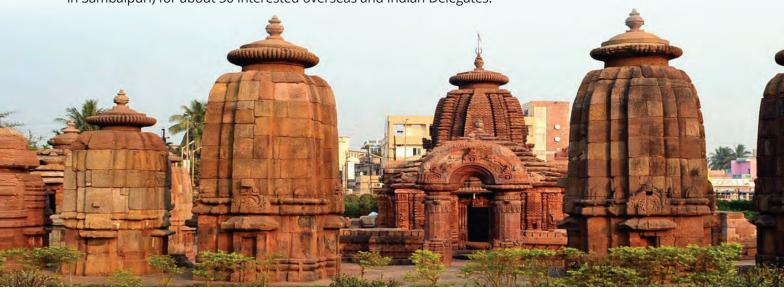
Tour 2 (Day trip): Migratory bird watching at Mangalajodi - Chilika Lake, Dhauli Shanti Stupa, Konark Sun Temple, and Puri beach for about 100 interested overseas and Indian Delegates.

15th February 2019

Tour 3 (Day trip): Satapada side of Chilika lake for Dolphin watching; Shree Jagannath Temple at Puri, Puri Beach, and Konark Sun Temple for about 100 interested Indian Delegates.

15th &16th February 2019

Tour 4 (2-Day trip): Hirakud dam, Maa Samaleswari Temple in Sambalpuri, and Sambalpuri Dance (Night stay in Sambalpuri) for about 50 interested overseas and Indian Delegates.





ORGANIZING PARTNERS















































MEDIA PARTNERS









SPONSORS

Platinum Sponsors









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Silver Sponsors





















Bronze Sponsors

































Contact Us

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