The Second JE-HydroNet Symposium on the Nile River System and the Delta of Egypt

The Science and Technology Development Fund (STDF) & The Japan Society for the Promotion of Science (JSPS)

JEHYDRONET: MODERN METHODOLOGIES FOR THE MANAGEMENT, MONITORING AND PLANNING OF INTEGRATED WATER RESOURCES IN NILE RIVER

المنهجيات الحديثة للإدارة والرصد والتخطيط المتكامل للموارد المائية في نهر النيل

“Problems Facing Nile River System and Delta of Egypt”

March 20-21, 2012

The German University in Cairo, New Cairo City, Egypt

Co-sponsored by:

National Water Research Center, Assiut University, Alexandria University, The German University in Cairo Egypt & Disaster Prevention Research Institute, Kyoto University, Japan
Organizing members of the symposium

Prof. Dr. Ibrahim El-Shinnawy (CoRI, NWRC, Egypt)
Prof. Dr. Mahmoud Senousy (Assiut University, Assiut, Egypt)
Prof. Dr. Mohamed Soliman (HRI, NWRC, Egypt)
Dr. Sameh Kantoush (The German University GUC, New Cairo, Egypt)
Dr. Haytham Awad (Alexandria University, Alexandria, Egypt)
Dr. Mohamed Saber (Assiut University, Assiut, Egypt)
Dr. Ahmad Seif-El-Nasr (Assiut University, Assiut, Egypt)

Egyptian Speakers

Prof. Dr. Mahmoud Abou Zeid Arab Water Council
Prof. Dr. Shaden Abdel-Gawad NWRC
Prof. Dr. Ibrahim El-Shinnawy
Prof. Dr. Nahed El-Araby
Prof. Dr. Ashraf El-Ashaal
Prof. Dr. Medhat Aziz
Prof. Dr. Sameh Saker
Prof. Dr. Ashraf El-Sayed
Dr. Ibrahim El-Sayed
Prof. Dr. Bayoumi Attia MWRI
Prof. Dr. Ibrahim El-Dimeery The German University, GUC
Prof. Dr. Laila Gamal Mahran
Dr. Sameh Kantoush
Ambassador Dr. Walid Abdel-Nasser Ministry of Foreign Affairs
Eng. Lama Mosad El-Hatow IFC, World Bank Group
Prof. Dr. Mahmoud Senousy Assiut University
Dr. Ahmed Seif-El-Nasr
Dr. Mohamed Saber
Eng. Claus Koehn Consulting German Company
Prof. Dr. Rawya Kansoh Alexandria University
Dr. Haytham Awad

Japanese Speakers

Prof. Dr. Tetsuya Sumi Kyoto University
Prof. Dr. Satoru Ushijima
Prof. Dr. Yasuhiro Takemon
Prof. Dr. Yoshinobu Sato
Dr. Toshio Hamaguchi
Dr. Daisuke Nohara
Prof. Dr. Gregory De Costa Open Polytechnic of New Zealand
Eng. Mohamed Reda Soliman Kyoto University
Eng. Masahiro Abe
Eng. Ahmed Kamal

Invited Japanese

Japanese Embassy in Egypt, JICA office, JSPS office, Private Companies
Themes of the Symposium

1. Flash Flood and Runoff Modeling
2. Water Resources Management and Climate Change
3. Reservoir Sedimentation and River Basin Ecosystem
4. Ground Water and Sea Water Intrusion
5. Dam impacts and Nile River Basin Ecosystem

Tuesday, 20th March 2012

9:00—10:00  Symposium Registration at the GUC

Opening Session
  Chaired by: Prof. Shaden Abdel-Gawad, NWRC

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<tr>
<th>Time</th>
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<th>Presenter</th>
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<tr>
<td>10:00—10:10</td>
<td>Opening Remarks and Guest Welcome,</td>
<td>Prof. Shaden Abdel-Gawad, (NWRC, Egypt)</td>
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<tr>
<td>10:10—10:20</td>
<td>Guest Welcome by the GUC representative</td>
<td>Prof. Dr. Ibrahim El-Dimeery (University Counselor &amp; BOT Member, GUC, Egypt)</td>
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<tr>
<td>10:20—10:30</td>
<td>Relationships Between Egypt and Japan: Education, Science and Political Aspects</td>
<td>Ambassador Dr. Walid Abdel-Nasser (Ministry of Foreign Affairs, Egypt)</td>
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<tr>
<td>10:30—10:50</td>
<td>GUC: 10 Years of Success</td>
<td>Prof. Dr. Laila Gamal Mahrain (Vice President for Student Affairs, GUC, Egypt)</td>
</tr>
<tr>
<td>10:50—11:10</td>
<td>Japan Egypt Hydro Network: Modern Methodologies for The Management, Monitoring and Planning of Integrated Water Resources in Nile River</td>
<td>Prof. Tetsuya Sumi (Kyoto University, Japan)</td>
</tr>
<tr>
<td>11:10—11:35</td>
<td>Coffee Break</td>
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Session 1: Flash Flood and Runoff Modeling
  Chaired by: Prof. Husam Fahmy, NWRC and Dr. Sameh Kantouch, GUC

Note: Allocated time for Oral Presentations: 15 min. talk + 10 min. discussion

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<tr>
<td>11:35—12:00</td>
<td>Warning system and national Strategy for Flash Flood Management in Egypt</td>
<td>Prof. Dr. Sameh Saker (NWRC, Egypt)</td>
</tr>
<tr>
<td>12:00—12:25</td>
<td>Integrated Water Resources Management: Lessons Learned in the Past Two Decades in Arab Region, Egypt</td>
<td>Prof. Rawya Kansoh (Alexandria University, Egypt)</td>
</tr>
<tr>
<td>12:25—12:50</td>
<td>Hydrological Simulation of Flash Floods Considering Prevention and Mitigation Strategies at The Nile River and Wadi El-Arish, Sinai Peninsula, Egypt</td>
<td>Dr. Mohamed Saber (Assiut University, Egypt)</td>
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</table>
Conflict on Water Resources Development between Multiple Nations in the Nile River Basin

Eng. Masahiro Abe (Kyoto University, Japan)

Lunch

Session 2: Water Resources Management and Climate Change
Chair by: Prof. Moustafa Gaweesh, NWRC and Dr. Haytham Awad, Alexandria University

14:20 – 15:00 Keynote: Impact of Climate Change in Water Resources on the Nile Basin Prof. Bayoumi Attia, (MWRI, Egypt)

15:00 – 15:40 Analysis of Long-Term Heat and Water Balance Change using GCM Output in the Nile River Basin / Study on Climate Change Impacts in Japan Prof. Yoshinobu Sato (Kyoto University, Japan)

15:40 – 16:05 Adaptation to Climate Change Impacts on Coastal Zone of the Nile Delta Prof. Ibrahim El-Shinnawy (NWRC, Egypt)

16:05–16:30 Two Dimensional Hydrodynamic, Pollutant Transport Model of El-Burulus Lagoon, Egypt Eng. Mohamed Reda Soliman (Kyoto University, Japan)

16:30–16:55 Assessment of Impacts of Climate Change on Water Resources in Egypt Eng. Lama Mosad El-Hatow (Ph.D. Candidate TU Delft and Erasmus University, Netherlands)

16:55 – 17:20 Impacts of SLR on Drainage Systems of Coastal Zones of the Nile Delta Dr. Ibrahim El-Sayed (NWRC, Egypt)

Poster Session

For the Young Researchers
Chair by Prof Mohamed Fawzi Bakri NWRC

17:20 – 18:45

18:45 – 20:45 Reception Dinner

Two Prizes:
1. Prof. Nagy prize for the best presentation (only Student Oral presentations).
2. Prof. Kojiri prize for the best Poster (only for Student Poster presentations)

The prizes will be decided by the Egyptian and Japanese Professors Committee.
**Second Day Program**

Wednesday, 21st March 2012

*Note: Allocated time for Oral Presentations: 15 min. talk + 10 min. discussion*

### Session 3: Reservoir Sedimentation and River Basin Ecosystem

*Chaired by: Prof. Sherif El-Manadely, Cairo University and Prof. Mohamed Soliman, NWRC*

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<tr>
<td>9:00–9:30</td>
<td>Keynote: Reservoir Sedimentation Management in Japan</td>
<td><strong>Prof. Tetsuya Sumi</strong> (Kyoto University, Japan)</td>
</tr>
<tr>
<td>9:30–10:00</td>
<td>Keynote: Egypt and the Nile Basin: Between past, present and future</td>
<td><strong>H.E.Prof. Mahmoud Abou-Zeid</strong> (Water Arab Council)</td>
</tr>
<tr>
<td>10:00–10:25</td>
<td>Monitoring of Sedimentation Process in Lake Nasser/Nubia</td>
<td><strong>Prof. Medhat Aziz</strong> (NWRC, Egypt)</td>
</tr>
<tr>
<td>10:25–10:50</td>
<td>Reservoir Sedimentation Management in the Nile River Basin and Integrated Development Project of Lake Nasser</td>
<td><strong>Dr. Sameh Kantoush</strong> (GUC, Egypt)</td>
</tr>
<tr>
<td>10:50–11:15</td>
<td>River Basin Ecosystem Management</td>
<td><strong>Dr. Yasuhiro Takemon</strong> (Kyoto University, Japan)</td>
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<tr>
<td>11:15–11:40</td>
<td>Eutrophication Assessment of Lake Burullus, Egypt</td>
<td><strong>Prof. Ashraf El-Said</strong> (NWRC, Egypt)</td>
</tr>
<tr>
<td>11:40–12:05</td>
<td>Multiphase modeling for fluid-structure interactions with high-performance parallel computations and their application to hydraulics problems</td>
<td><strong>Prof. Satoru Ushijima</strong> (Kyoto University, Japan)</td>
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12:00 – 13:00 **Lunch**

### Session 4: Ground Water and Sea Water Intrusion

*Chaired by: Prof. Ahmed Khater, NWRC and Dr. Mohamed Saber, Assiut University*

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<tr>
<td>13:00–13:40</td>
<td>Keynote: Assessment and Management of Coastal Ground Water Subject to Salinity Intrusion</td>
<td><strong>Prof. Gregory De Costa</strong>, Open Polytechnic of New Zealand, New Zeland</td>
</tr>
<tr>
<td>13:40–14:05</td>
<td>Basin-scaled Groundwater Modeling and Fundamental Consideration of Seawater Intrusion</td>
<td><strong>Prof. Toshio Hamaguchi</strong> (Kyoto University, Japan)</td>
</tr>
<tr>
<td>14:05–14:30</td>
<td>Ground water and Salt Water Intrusion in the Nile Delta of Egypt</td>
<td><strong>Prof. Nahed Alaraby</strong> (NWRC, Egypt)</td>
</tr>
<tr>
<td>14:30–14:55</td>
<td>Surface and Ground Water Interaction Detection and Protection: Case Study 1</td>
<td><strong>Prof. Mahmoud Senousy</strong> (Assiut University, Egypt)</td>
</tr>
<tr>
<td>14:55–15:20</td>
<td>Surface and Ground Water Interaction Detection and Protection: Case Study 2</td>
<td><strong>Dr. Ahmed Seif</strong> (Assiut University, Egypt)</td>
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15:20–15:30 **Coffee Break**
### Session 5: Dam Impacts and Nile River Basin Ecosystem

*Chaired by: Prof. Mahmoud Senousy, Assiut University and Dr. Ahmed Seif-El-Nasr, Assiut University*

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<tr>
<th>Time</th>
<th>Topic</th>
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<tr>
<td>15:30 – 16:10</td>
<td>Keynote: Dam Impacts on the Downstream Region</td>
<td>Prof. Alaa Alzawahry (Cairo University, Egypt)</td>
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<tr>
<td>16:10 – 16:35</td>
<td>Evaluation of the Performance of Existing Dams</td>
<td>Prof. Ashraf El-Ashaal (NWRC, Egypt)</td>
</tr>
<tr>
<td>16:35 – 17:00</td>
<td>Real-time Reservoir Operation Considering Meteo-Hydrological Information - Practices, studies and issues in Japan-</td>
<td>Prof. Daisuke Nohara (Kyoto University)</td>
</tr>
<tr>
<td>17:00 – 17:25</td>
<td>Impact of High Aswan Dam on the Nile River</td>
<td>Prof. Karima Attia (NWRC, Egypt)</td>
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<tr>
<td>17:50 – 18:15</td>
<td>Environmental management of the Barrage Projects: Case studies Nage Hammadi and Assiut new Barrages</td>
<td>Eng. Klaus Koenhlein (German Consulting Company, Germany)</td>
</tr>
<tr>
<td>18:15 – 19:15</td>
<td>Closing Discussions / Summary / Future Plans (all)</td>
<td>Prof. Tetsuya Sumi / Prof. Ibrahim El-Shinnawy / Dr. Sameh Kantoush</td>
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