

# 21st Century Watershed Technology Conference and Workshop

**Improving Water Quality and the Environment  
Bari, Italy  
May 26th- June 1st, 2012**

## **Saturday, May 26, 2012**

7:30AM-5:00PM

REGISTRATION OPENS

8:30AM-5:00PM

**CPD #1 SWAT Workshop (Beginner, Day 1)**

**Presenters:** Jeff Arnold

*Location: Computer Lab 1*

**CPD #2 SWAT Workshop(Advance, Day 1)**

**Presenters:** Jeff Arnold

8:30AM-12PM

**CPD #3 Water Supply, Pond Design and Levee Pond Economic**

**Presenter:** William Tollner

*Location: Computer Lab 2*

## **Sunday, May 27, 2012**

7:30AM -5:00PM

REGISTRATION OPENS

8:30AM-5:00PM

**CPD #1 SWAT Workshop (Beginner, Day 2)**

**Presenters:** Jeff Arnold

*Location: Computer Lab 1*

**CPD #2 SWAT Workshop(Advance, Day 2)**

**Presenters:** Jeff Arnold

**CPD #4 Comprehensive Environmental and Economic Optimization Tool (CEEOT)**

**Presenters:** Ali Saleh

*Location: TBA*

6:00PM-8:00PM

**Welcome Reception**

*Location: TBA*

## **Monday, May 28, 2012**

**8:30AM-10:00AM OPENING CEREMONY**

TBD

**Official Opening of the Conference**

TBD

**10:00AM-10:30AM BREAK**

**10:30AM-12:00PM OPENING CEREMONY (GENERAL SESSION)**

12:00PM-1:20PM **LUNCH (Provided)**

*Location: TBA*

**Monday, May 28, 2012**

1:20PM-3:00PM **CONCURRENT SESSIONS**

### ***I. Agricultural BMP Effectiveness***

*Location: TBA*

*Moderator: TBA*

**Assessing the cost-effectiveness of reduced N-fertilizer application rates and alternative application regimes in the Cértima catchment**

*João Rocha; Peter c. Roebeling; Henrique Alves; Sara Fonseca; Maria Luz Rodriguez Blanco*

**Development of cost effective nitrogen management strategies: Scenario evaluation with the DSS FyrisCOST**

*Dennis Collentine, Holger Johnsson, Peter Larsson, Hampus Markensten & Mats Wallin*

**The impact of agricultural conservation management practices on simulated water balance and sediment loss in a Central Brazil catchment.**

*Michael Strauch, Albano Araújo, Jorge E.F.W. Lima, Franz Makeschin*

**Ecological services of constructed two-stage agricultural ditches**

*Jessica D'Ambrosio, Jonathan Witter, Andy Ward, Jen Tank*

### ***II. Data Collection to Support Water Quality/Quantity Development***

*Location: TBA*

*Moderator: TBA*

**Data Collection for GIS-based Landscape-scale River Habitat and Stream Bank Mapping for Tennessee River Systems**

*Ayers, Paul, Ken Swinson, Brett Connell, Bryan McConkey, J.R. Candlish, Chanci King, Matt Ellison*

**Statistical behaviour of load estimators based on routine monthly data series**

*Maria Angeles Lorenzo, Daniel Isidoro, Dolores Quilez*

**Runoff curve number for a small forested watershed in semiarid region of Brazil - presentation as poster**

*Eunice M. de Andrade, Helba Araújo Q. Palácio, Julio Cesar N. Santos, Joseilson O. Rodrigues, Maria João S. Guerreiro*

**Establishing a Long-Term Agro-Ecosystem Research (LTAR) Network**

*Walbridge, Mark R. and Steven R. Shafer*

### ***III. Effects of Climate Change on Water Resources and Water Quality***

*Location: TBA*

*Moderator: TBA*

**Impact of global warming on Vanderkloof dam catchment**

*Josiah Adeyemo, Oluwatosin Olofintoye*

**European scenario studies on future in-stream nutrient concentrations**

*Klara Reder, Ilona Bärlund, Anja Voß, Ellen Teichert, Richard Williams, Olli Malve, Martina Flörke*

**Impact of climate change on soil moisture condition in Nova Scotia**

*Rahelch Malekian, Robert Gordon, Ali Madani, Seyyed Ebrahim Hashemi*

**Future scenarios for environmental flows in a large semi-natural river basin in Poland: A case study with the SWAT model**

*Piniewski, M., Okruszko, T. & Acreman, M.C.*

**3:00-3:20 PM BREAK**

**3:20-5:00PM CONCURRENT SESSIONS**

***IV. Bacterial Monitoring, Source Identification and Control Practices***

Location: TBA

Moderator: TBA

**Management of salinity and nutrients at a biomass energy project**

*Mary Kay Camarillo, William T. Stringfellow, Jeremy S. Hanlon, Michael B. Jue*

**Estimation of E. coli Concentrations from Non Point Sources Using GIS**

*K. McKee, R. Karthikeyan, P. Smith, and R. Srinivasan*

**Particle Association of Waterborne Escherichia coli in an Agricultural Watershed**

*Rob Jamieson, Greg Bezanson, Lisbeth Truelstrup-Hansen, Chris Yost*

**Fate and Transport of Metribuzin in Soil Irrigated with Poor Quality Irrigation Waters**

*Eman Elsayed, Shiv Prasher*

***V. Pollution Control/Management Practices for Point and Nonpoint Sources***

Location: TBA

Moderator: TBA

**Spore-Forming Bacteria as Indicator Organisms in Wastewater Systems**

*Mary Kay Camarillo, Natalie Muradian*

**Groundwater Conservation Against Lake Brine Invasion by Means of New Technology of Neutral Underground Barrier**

*M. H. Davoudi; M. Jafari B.*

**Mitigation of diffuse sources related to pesticide application: the topops-prowadis project**

*Paolo Balsari, Paolo Marucco, Manfred Roettele, Aldo Ferrero*

**Usage of coagulation with ozonation for treatment of model wastewater of wood processing with aluminium salts**

*J. Brovkina<sup>1</sup>, G. Shulga<sup>1</sup>, S. Vitolina<sup>1</sup>, B. Neiberte<sup>1</sup>, J. Ozolins<sup>2</sup>, M. Turks<sup>2</sup>, V. Rjabovs<sup>2</sup>, R. Neilands<sup>2</sup>*

***VI. Emerging Tools in Water Quality Analysis***

Location: TBA

Moderator: TBA

**The Nutrient Tracking Tool - An Emerging Tool for Resource Analysis and Nutrient Trading**

*Shaun P McKinney, Dr. Harbans Lal, Christoph Gross, Joseph Bagdon, Dr. Ali Saleh*

**Evaluation of farm cultural and structural management practices with Nutrient Tracking Tool (NTT)**

*Ali Saleh, Oscar Gallego, Edward Osei*

**A Procedure for Linking Watershed Models and Lake Models Together**

*Brian J. Watson, PE, PH and Jeremy R. Wyss*

**Multipurpose Technical Cadastre Tools for Water Resources Management**

*Gonzalez, Rafael ; Bley, Cicero; Mariani, Leidiani;*

**5:00-6:30 PM: \*Poster Presentation. See page 13**

**Tuesday, May 29, 2012**

**8:20-10:00AM CONCURRENT SESSIONS**

**VII. Field and Watershed Scale Modeling**

Location: TBA

Moderator: TBA

**Modeling the effects of the intensification of drainage practices in the Red River of the North Basin, Minnesota**

*Dario Canelon*

**An Integrated modeling approach for evaluation of on-site wastewater system Phosphorus loading in rural Nova Scotia watersheds**

*Sinclair, A., R. Jamieson, A. Madani, R. Gordon, W. Hart and D. Hebb*

**Hydrologic and nutrient impacts of switchgrass on the Flatrock River, Indiana watershed using SWAT simulations**

*Kyle Vester*

**Application of SWAT for modeling management scenarios in a large lowland watershed in Poland**

*Ignacy Kardel, Mikolaj Piniewski, Marek Gielczewski*

**VIII. Watershed Implementation Planning**

Location: TBA

Moderator: TBA

**Use of Morphological characteristics for Multi-Criteria evaluation through Fuzzy analytical hierarchy process for prioritization of watersheds**

*P. D. Aher, J. Adinarayana, S. D. Gorantiwar*

**Managing Phosphorus enrichment in Watersheds with high levels of livestock and poultry production.**

*Lawrence Risse*

**GIS Techniques used for assessment of groundwater potential zones in Yerela River basin, western Maharashtra, India**

*Zende A.M., Dr. R. Nagarajan*

**Community decisions (Community decision support for integrated, on-the-ground nutrient reduction strategies)**

*Mary Leigh Wolfe, Javier Osorio, James Pease, Darrell Bosch, Christopher Zobel*

**IX. Economic Implications of Water Quality/Quantity OR Political and Social Ramifications**

Location: TBA

Moderator: TBA

**Factors conditioning the adoption of water conserving techniques in Valencia, Spain**

*Ortega M. V., García-Molla M., Palau-Salvador G. and Avellá L.*

**Application of Analytic Hierarchy Process to Prioritize the Factors Influencing Farmers' Decision on Adoption of Soil Conservation Practices on Agricultural Watershed Areas in Okinawa, Japan**

*Kazuhito Sakai and Kensuke Okada*

**Pricing policies in managing water resources in agriculture: an application of contract theory to unmetered water**

*Francesco galioto.*

**Educating local communities for Integrated Water Resource Management using SPED Model**

*Eranki L N Kiran, A. Siva Sena Reddy*

**10:00-10:20AM BREAK**

**10:20-12:00PM CONCURRENT SESSION**

***X. Data Collection to Support Water Quality/Quantity Development***

Location: TBA

Moderator: TBA

**Analysis of Pesticide Application and Stream Water Quality Using Long-Term Data at County Level for Southern Ontario**

*Syed I. Ahmed, Ramesh Rudra, Shadi Dayyani, Pradeep Goel, Bahram Gharabaghi*

**Effect of vegetation and seasons on the water content of soil under climatic conditions of the Atlantic Forest in Southern Brazil**

*Rafael Matias Feltrin, João Batista Dias de Paiva, Eloiza Maria Cauduro Dias de Paiva, Vanessa Sari and Lariane Schlosser Brites*

**Consideration of hydrology, hydraulics, and stream morphology to effectively meet state and national water quality standards**

*Jessica D'Ambrosio, Andy Ward, Jonathan Witter*

**Identifying watershed variables for streamflow prediction in ungauged watersheds**

*Ernest W. Tollner and Herbert Ssegane*

***XI. Establishing Clean Sediment Water Quality/Quantity***

Location: TBA

Moderator: TBA

**Water Classification and Quality analysis of Bukit Merah reservoir in Malaysia**

*Christopher O. Akinbile, Mohd Suffian Yusoff, Siti Hidayah Abu Talib, Zorkeflee Abu Hasan, A. M.M. Haque, U. B. Samsudin*

**Construction Site Sediment Control Modeling**

*B. J. Barfield, S. Patil, N. Bhadbhade, D. Storm, J. Vogel, and S.L. Harp*

**Using SWAT to Predict Pre- and Post-Development Hydrologic Regimes**

*Roger Glick, Leila Gosselink*

**Hydrologic and sediment transport in complex Mediterranean catchment**

*C. Gamvroudis, N. P. Nikolaidis, N. Karalemas, V. Papadoulakis, O. Tzoraki*

***XII. Impact of Extreme Weather Conditions for Water Quality/Quantity***

Location: TBA

Moderator: TBA

**Copula-based Drought Severity-Area-Frequency Analysis in Western Rajasthan, India**

*Poulomi Ganguli, M.Janga Reddy*

**Predictability of Nutrient Loads Delivered to Lake Michigan Based on Extreme Storm Events**

*Siddhartha Verma, Richard Cooke, Momcilo Markus*

**Trends in streamflow in the Ibicuí river basin - influence of rice crop irrigation.**

*Eloiza Maria Cauduro Dias de Paiva, Conrad D. Heatwole, João Batista Dias de Paiva, Rodrigo Cauduro Dias de Paiva*

**Land use and climate change impacts on surface water quality in an agricultural mesoscale watershed in Bavaria**

*Gombault, C., Ferber, F., Lehner, B., Ludwig, R.*

**12:00-1:20 Lunch (provided)**

**1:20-3:00 CONCURRENT SESSION**

### **XIII. Agricultural BMP Effectiveness**

Location: TBA

Moderator: TBA

#### **Thomas Brook 2012: Surface Water Quality Observations from 10 years for a rural watershed in Nova Scotia, Canada**

*Dale Hebb, Rob Jamieson, Rob Gordon, Beata Lees*

#### **Effect of Agricultural Activities on Groundwater Resources Quantitative and Qualitative Characteristics (A Case study: Khodabande plain in Zanjan-Iran)**

*Ojaghlou, H., Ojaghlou, F., Sohrabi, T., Dezvare, A.*

#### **Plot scale experiment of agricultural NPS reduction assessment for non-irrigated cropland**

*Kim, Sung Jae, Kim, Sung Min, Jang, Jeong Ryeol*

#### **Evaluation of BMPs Scenarios for minimizing phosphorus and sediments transport in sprinkler irrigation system**

*Ahmed Skhiri and Farida Dechmi*

### **XIV. Emerging Problems of New Water Quality/Quantity Case Studies**

Location: TBA

Moderator: TBA

#### **Watershed-Scale Impact of Land-use changes for Bioenergy Production**

*David D. Bosch, Jeff G. Arnold, James R. Kiniry, George Vellidis, and Puneet Srivastava*

#### **Evaluation of the spectral similarity of the reservoir waters of rural and urban watershed**

*Ana Célia Maia Meireles, Fernando Bezerra Lopes, Eunice Maia de Andrade, Cláudio Clemente Faria Barbosa, Evelyn Marcia Leão de Moraes Novo*

#### **Spatio-temporal variability in stream flow status: Candelaro river case study (Italy)**

*A.M. De Girolamo, F. Gallart, A. Lo Porto*

#### **Assessing the impact of hydraulic fracturing on water resources in the Fayetteville Shale Area (Arkansas, USA)**

*A. Abouabdillah, M. Di Luzio, J. Cothren, M. Williamson*

### **XV. Watershed Management in Developing Countries**

Location: TBA

Moderator: TBA

#### **Effect of Spatial Resolution on Watershed Characteristics and the AGNPS Model Hydrologic Simulations**

*Ramadhar Singh, B. C. Mal and K.N. Tiwari*

#### **Use of Morphological Characteristics for Multi-Criteria Evaluation through Fuzzy Analytical Hierarchy Process for Prioritization of Watersheds**

*P. D. Aher, J. Adinarayana, S. D. Gorantiwar*

#### **Point and Diffuse Sources of Pollution and Surface Water Quality in Marmara Basin, Turkey**

*Selma Ç. Ayaz, Özgür Aktas, Sönmez Dagli, Lütfi Akça*

#### **Combined use of models and GIS software components for participatory land and water management in Ukraine**

*Romashchenko, M., Zhovtonog, O., Hoffmann, M. and Bolkina, O.*

**3:00-3:20PM BREAK**

**3:20-5:00PM CONCURRENT SESSION**

### **XVI. Performance and Validation of Models for Water Quality/Quantity**

Location: TBA

Moderator: TBA

**The SID&GRID project: developing GIS embedded watershed modeling**  
*Borsi, I., Rossetto, R., Schifani, C.*

**Defining "Typical" Rainfall for Water Quality Modeling**  
*J.C. Hayes, B. J. Barfield, and S.L. Harp*

**Prediction of soil and nutrient losses on Chianti vineyard with SWAT model**  
*Napoli M., Orlandini S., Grifoni D., Zanchi C.*

**How water is a limiting factor for agricultural development in coastal Mediterranean plains? A case study in the Grosseto Province (Tuscany, Italy).**  
*Martha Debolini*

### ***XVII. Measuring Success – Post-Implementation Monitoring***

Location: TBA  
Moderator: TBA

**Spatio-Temporal patterns in soil water content time series: Influence of the time series length and precipitation events**  
*J. L. Arumí & M. Lillo*

**Dissemination and uptake of EC Framework Programme water research results**  
*Thomas Kerry*

**Simulating the hydrologic effects of checkdams in the Chelchay watershed using HEC-HMS model**  
*najafinejad ali, Yavarzadeh mohammad*

**A Real-Time Simulation-Optimization Model for Operation of Reservoirs during Droughts**  
*Majid Delavar, Saeed Morid, Mahnoush Moghadasi*

### ***XVIII. Solutions for Increasing Stakeholder Involvement in the Water Quality/Quantity Process***

Location: TBA  
Moderator: TBA

**Bioretention Demonstration Project for Seaside Village in Bridgeport, Connecticut**  
*Steven Trinkaus*

**Creating a Stormwater Park in the City Meadow of Norfolk, Connecticut**  
*Steven Trinkaus*

**Spatial Distribution And Variation OF Borehole Water Quality With Depth In Uyo Municipality, Nigeria**  
*Obot E. Essien, E D. Bassej*

**Lake Chad Restoration:Communities Attitude and Expectations**  
*Ajibike Adeyemo, Prof.Lars RibbeProf.Sabine Shuelter*

**6:30-8:30PM Dinner (provided)**

**Wednesday, May 30, 2012**

**8:20AM -10:00AM CONCURRENT SESSIONS**

### ***XIX. Watershed Implementation Planning***

Location: TBA  
Moderator: TBA

**A Framework for Developing a Sustainable Watershed Management Plan**  
*S. Mohan*

**Soil Loss Minimization through Land Use Optimization**

*Davood Nikkani, Hadi Chamheidar, Mohammad Hossein Mahdian, Ebrahim Pazira*

**Holistic Approach For Sustainable Development Of Lake Using Satellite Remote Sensing And GIS**

*Kamal Narain Joshi*

**Landscape-scale mapping of potential versus actual ecosystem services in freshwater ecosystems.**

*Katrien Van der Biest*

**XX. Pollution Control/Management Practices for Point and Nonpoint Sources**

Location: TBA

Moderator: TBA

**Assessment of diffuse pollution sources in legedadi reservoir watershed**

*Amare Shiberu*

**Effect of generated organic wastes on insitu soils' physico-chemical, heavy-metal and microbial properties at municipality animal park/market, Uyo, Nigeria**

*O. E. Essien, E. E. Eshiett, E. F. Akai*

**Using Carbon from Olive Stone as a Filtering Media for Industrial Wastewater Treatment**

*Ahmed Mahrous Hassan , Mohamed Mahmoud Ibrahim*

**Multivariate Statistical Methods and Neural Networks for the identification of pollution sources and classification of the Apulia region ground waters.**

*P. Ielpo, D. Cassano, A. Lopez, G. Pappagallo, V.F. Uricchio, L. Trizio, G. De Gennaro*

**XXI. Field and Watershed Scale Modeling**

Location: TBA

Moderator: TBA

**Modeling the Impacts of Climate Change on Nitrogen Removal in a Small Agricultural River**

*Michael Rode*

**Investigation of methodologies for up-scaling SWAT model results**

*Bouraoui Faycal, Pagliero Liliana*

**Geo-spatial analysis of the nitrate contamination of groundwater from diffuse sources**

*M. C. Trifu, V. Daradici, D. Mihailescu, I. Calciu*

**Water quality standards of fluoride contaminated wáter : a case study from India**

*S.K.Sharma*

**10:00-10:20AM BREAK**

**10:20AM-12:00AM CONCURRENT SESSIONS**

**XXII. Performance and Validation of Models for Water Quality/Quantity**

Location: TBA

Moderator: TBA

**Modeling runoff with AnnAGNPS model in a small agricultural catchment, in Mediterranean environment**

*Duarte, A. C., L. Mateos, E. Fereres*

**Sensitivity of Modeled Watershed Attributes and Hydrological Outputs to DEM Spatial Resolution**

*Goulden, T., Jamieson, R., Hopkinson, C. Hebb,D.*

**Parameter estimation in LEACHN for Zeolite-Amended Soil and Unamended-Soil Conditions**

*Rahelch Malekian, Jahangir Abedi-Koupai, Sayed Saeid Eslamian*

**Simulating spatiotemporal distribution of soil water content in a drip-irrigated maize field using**

**HYDRUS 2D**

*Fatemeh Karandish, Seyed Majid Mirlatifi, Ali Shahnazari, Fariborz Abbasi, Mehdi Gheisari*

**XXIII. Wetlands, Stream and River Restoration, Bio-monitoring and Land Use Impacts on Downstream Water Bodies**

Location: TBA

Moderator: TBA

**Modeling Small Reservoirs to Estimate Overflow and Groundwater Recharge in the Great Plains**

*Ravikumar. B. Choodegowda, James. K. Koelliker, Darrel. E. Martin, and Philip. L. Barnes*

**Long-term Monitoring of Stream Restoration Success at the Stream Research, Education, and Management (StREAM) Laboratory, Virginia Tech, USA**

*Theresa Wynn Thompson, W. Cully Hession, Durelle Scott, Brian Benham, Leigh-Anne Krometis, Jessie Lutz, Laura Teany, Gene Yagow*

**The results of eight years of restoration the Plawnowice reservoir by hypolimnetic withdrawal**

*Maciej Kostecki and Jan Suschka*

**Evaluation of water quality and demand for wetland restoration/creation within the Nate catchment**

*Dirk Vrebos*

**XXIV. Ground water and nutrients**

Location: TBA

Moderator: TBA

**Scale effects on the simulation of hydrological processes.**

*Margherita Di Leo, Salvatore Manfreda, Mauro Fiorentino, Vito Iacobellis.*

**Evaluate and Mapping Groundwater Quality using Geostatistics for Sustainable Land Management in Darb El-Arbaeen, South Western Desert, Egypt**

*Omrán El-Sayed Ewis and Selmy Salman*

**Baselines, Measurement and Verification: Universally, BMP #1**

*Thomas A. Reynolds, E. Ray Bigler, CPAg*

**Monitoring of Groundwater Quality of Andimeshk Plain Using DRASTIC AND GIS**

*Kolahchi Abdeh*

**12:00PM-2:00PM LUNCH AND CLOSING CEREMONY:**

**Monday, May 28, 2012**

**5:00-6:30 PM POSTER SESSION**

Location: TBA

Moderator: TBA

**Poster # Title and Authors**

- 1. Investigation of Date Palm Leaf Performance as a Bioreactor in Nitrate Removal of Subsurface Drainage Water**  
*Manouchehr Heidarpour, Behrouz Mostafazadeh-Fard*
- 2. Hillslope Soil and Nutrient Loss Quantification from Run-off Plots of Different Soil Cover**  
*jeoffrey lloyd r bareng*
- 3. Effect of ferrous ion on ammonium adsorption on the albic black soil in Sanjiang Plain in northeastern China**  
*Chen Yiting, Cheng Hongguang, Pu Xiao, Lin Chunye*
- 4. Influence of soil physical properties on SWAT catchment model calibration results**  
*Matjaž Glavan, Marina Pintar*

5. **Evapotranspiration Process as Affected by Weather, Irrigation Method, and salinity**  
*Kamal Hossny Amer*
6. **A survey of underground water level sway variations under different climate conditions in Neishabour basin of Iran**  
*Dezvarreh Ghorbanali, Naderianfard mohamad, Ansari Hossein*
7. **The UNESCO ecohydrology demosite Kielstau catchment – sustainable water resources management and education in rural areas**  
*N. Fohrer and B. Schmalz*
8. **Evaluation of the Drip Irrigation Clogging under Egyptian Conditions**  
*M.A. Rashad, M.W.M. Elwan, K.E. Abd El-Hamed, S.A.M. Abd El-Azeem*
9. **Soil erosion on different spacial scales for the natural conditions of the caatinga biome in Brazil**  
*Julio Cesar N. dos Santos, Eunice M. de Andrade, Helba A. Q. Palácio, José R. Araújo Neto, José Ailton S. Filho*
10. **Modeling flow field in freshwater lake under different construction scheme of high-speed railway bridge using the Delft-3D model**  
*Hang Chen Larry C Brown Yongsheng Fu*
11. **Assessing the Hydrological Vulnerability of the Rio Nazas Basin in Mexico Using SWAT Model**  
*Victor Manuel Salas-Aguilar, Alma Delia Baez-Gonzalez, and Maria de Jesus Torres-Meza*
12. **Evaluating the capability of HEC-HMS model in Lumped and Distributed simulation of flood hydrograph and determining the flood intensity of Damanand sub-basins, Iran.**  
*Fatemeh Karandish, Nasir Roushenas*
13. **Scenarios simulation of the runoff response for a peri-urban watershed in the Atlantic Forest Biome, Southern Brazil.**  
*Fábio Alex Beling; João Batista Dias de Paiva; Eloiza Maria Cauduro Dias de Paiva and Conrad D. Heatwole*
14. **Hydrologic Enforcement of LiDAR for Targeted Conservation**  
*Brian Gelder*
15. **Emergy evaluation of different management applied to watersheds of the caatinga biome**  
*Helba Araújo de Queiroz Palácio; Eunice Maia de Andrade; Júlio César Neves dos Santos; José Ribeiro de Araújo Neto; Palilo Palácio Brasil*
16. **Water Yield and Soil Erosion Prediction on Croplands Using WEPP Model (A Model Evaluation on Hilly Lands of Cagayan Valley Region, Philippines)**  
*jeoffrey lloyd r bareng*
17. **Remote Sensing Estimation of Evapotranspiration for SWAT Model Calibration**  
*Ali M. Sadeghi, Peter C. Beeson, Craig S.T. Daughtry, Bakhyt Akhmedov, Joseph G. Alfieri, Martha C. Anderson, Christopher Hain, and Mark D. Tomer, John H. Prueger, William P. Kustas, Jerry Hatfield*
18. **Evaluating the effectiveness of a passive stormwater treatment system for the Lake Tahoe basin**  
*Ms. Stacy Costello, Dr. Mary Kay Camarillo, Dr. Scott Merry, Dr. William Stringfellow*
19. **Analysis of groundwater quality by fuzzy inference system in nine cities of Isfahan, Iran**  
*S. E. Hashemi Garmdareh, S. F. Mousavi, S. M. Taheri & A. Ghareh-Chahi*
20. **Combating Agricultural drought in developing Countries through Watershed Approach: A case study from Odisha, India**  
*S. Sangita Mishra and R. Nagarajan*
21. **Assessment of Emitter Discharge in Low Head Drip Irrigation as Affected by Greywater**  
*Mohamed A. Rashad, Khalid E. Abd El-Hamed, Mohammed W. M. Elwan and Samy A. M. Abd El-Azeem*
22. **Groundwater Monitoring Wells Depth Location**  
*Abdeh Kolahchi*
23. **Impact of land cover change to runoff generation in the humid tropics - A water quantity case study in Panama.**  
*Frank Bäse, Helmut Eisenbeer,*

**2:00PM-5:00PM CAMPUS TOURS**

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**TOURS**

**THURSDAY AND FRIDAY (all day) TECHNICAL TOURS**

**Daily NON-TECHNICAL TOURS (Please see the Conference staff at the registration desk)**