The **1st International River Summit** will be held on November 24-26, 2016 at Allahabad, INDIA. The SUMMIT will provide a leading edge, scholarly forum as well as discussions on field problems for researchers, engineers, scientists, academicians, government officials and students. All stakeholders will share their state-of-the art research and developmental work in the water and other fields related to water. The SUMMIT will feature a diverse mixture of interactive forums, core technical sessions of high quality cutting-edge research articles; insightful keynote speeches; panel discussions from domain experts, direct discussions with farmers and students, and the Case studies, posters presentations on emerging ideas.

Introduction to SUMMIT Theme

Basin wise optimization of water resources with other ecosystem activities including agriculture, fisheries etc., is becoming necessary to secure crop and water productivity at all the regions of the world. Decline in fresh water resources and increasing water demand due to global warming, excessive use in agriculture, occasional drought and excess exploitation is posing severe problems for food security. Watershed Management, Water harvesting and timely supply of water to crops, Precision agriculture practices, use of optimal farm inputs and machines for post-harvest processing of farm products somehow provides better farm income. Application of biotechnology for crop modification and genetic improvement of fresh water fishes etc., and processing/ improvement of shelf value of end products provide additional food security alternatives. The SUMMIT will discuss the scientific and technological implications, available know how and its application and resource availability for water Conservation and protection for agriculture and urban areas throughout the world.

THEME 1: Water Demand and Storage Potentials in River Basins

- Water demand projections and water allocations for the 21st century
- Domestic industrial and agricultural water use patterns
- Role and Capacity improvement of Dams and Reservoirs
- Urban water Management
- Water accounting and budgeting for sustainable water management
- Crop and water productivity
- Market-based instruments for water sustainability
- Ecological governance legal and institutional framework for fresh water
- Reviving traditional knowledge and practices
- Building partnerships and enhancing capacities
- Global and national information systems, models and it applications
- Assessments and conservation actions

Search for solution: River interlinking, Ground water recharging, Water Conservation strategies

THEME 2: **Climate Change impacts on Hydrology, water Resources and Agriculture**

- Climate change studies
- Climate change and the effects on freshwater ecosystems and Agriculture
- Hydrologic cycle approaches and modelling
- Rivers and sustainable Water Resource Management
- Droughts, Floods, Risk and uncertainty
- Runoff and sediment models, Decision support and Expert Systems

Search for solution: Drought and flood mitigation: micro climate control: Crops in changing climate

THEME 3: Threats to world's rivers, Lakes, wetlands and fresh water systems

- Flow regimes and aquatic biodiversity
- Environmental flows
- Invasive Alien Species and the Conservation and Sustainable Use of Biodiversity
- Rivers, biodiversity and livelihoods
- *Climate Change and biodiversity*
- *Biodiversity conservation*
- River and ground water quality appraisal assessment, Monitoring and Improvement
- Sewage Disposal and Treatment

Search for solution: Urban and rural water quality improvement, biodiversity conservation

THEME 4: Sustainable Watershed Planning for River flows Regeneration

- Water Crisis and the Need for River Restoration
- An Ecosystem Approach for Agriculture, Improved crop varieties, deficit irrigation, Evapotranspiration estimates and models, Improved irrigation systems, Sensors and Instrumentation, Remote Sensing and GIS applications
- Genetic Modification of Crops, Microbes, Application of Nanotechnology
- Water for sustainable food production, poverty alleviation and rural development
- Focusing on farmers as custodians of diversity
- Land use decisions for conservation and other uses
- Carbon credits for agricultural biodiversity
- Integrated Watershed Management
- Technologies for Moisture Conservation and Water Harvesting
- Strengthening institutions and policy frameworks
- Capacity Building, Case Studies Raising awareness

Search for solution: Food security provisions and Watershed solutions

THEME 5: River Biodiversity and Ecosystem sustainability & Restoration

- Ecological Consequences of Biodiversity losses
- Status of biodiversity by safeguarding ecosystems, species and genetic diversity
- Biodiversity conservation to sustainable development
- Biodiversity and ecosystem services
- Environmental and sustainability appraisals
- Enhance implementation through participatory planning, knowledge management and capacity building
- From genetic resources to ecosystem services
- Economic Valuation of Biodiversity
- Participatory Management and Public Private Partnerships in water management and biodiversity Conservation

Search for solution: Restoration Framework and strategies for ecosystem revival

These presentations identified or offered solutions to problems, utilize case studies, identify knowledge gaps or collaboration opportunities, and discuss broader applications and implications of material presented. Participants from academic, industrial professionals and key-decision makers delivered the new achievement on their research, together discussed and analyzed the efficient use of water and its conservation.

The SUMMIT will promote the communication of colleagues and collaboration of partners from the Industries, Academic and Scientific Institutions, and Government officials, NGO's, farmers and students.

Large number of research Scholars, students of Engineering, IT and Agriculture and other disciplines are expected to attended the SUMMIT and will be equally benefitted.

The SUMMIT is designed to provide a strong platform for professionals from both academic and industrial sections to make experience exchanges around the world. It will bring together industry leaders, investors, policy makers, scientists, researchers and other professionals working in the area of Agriculture and discuss the latest scientific advances in agriculture and future directions of the technologies and will also provide an excellent learning platform to students.

We cordially invite you to participate in the three day event. Your participation could be by
Expert talks in topics mentioned above,
Presentation of research paper /poster presentation

We sincerely hope for a positive response from your end to make the SUMMIT a grand success.