Criterion 7 - Institutional Values and Best Practices

7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words.

Response:

SCMS Water Institute (SWI) was established in 2010 as part of a Memorandum of Understanding between University of Applied Sciences Ravensburg-Weingarten, Germany and SCMS Group of Educational Institutions to address the water related environmental problems affecting the society. Since water is one of the most important resource limitations of the century, it was the commitment from the SCMS to establish a research and consultancy centre on water for its effective management and sustainable development. The institute initially known as Centre for Sustainable Water Technology and Management (CSWTM) was renamed in 2015. SWI functions with a mission to address the water related issues through multidisciplinary efforts in order to achieve a sustainable and secure water future. SCMS Water Institute accomplishes its mission through research and development, technology incubation and application, education and training, demand driven consultancy and networking. SWI was funded by Baden Wuttemburg Stiftung Germany for establishing an Indo-German centre of competence for water and waste water under the leadership of University of Applied Sciences Ravensburg- Weingarten. SWI hold MoU's with many German companies working on water and waste water as well as with German Universities for Institutional strengthening, joint research and for faculty and student exchange. SCMS Water Institute accomplishes its mission through research and development, technology incubation and application, education and training, demand driven consultancy and networking. Since its inception Water Institute have been working closely with local self-governments in Kerala to address their water related challenges.

SWI acts as a Centre of Excellence in water and provides enormous opportunities for the students of SSET to get involved in service learning, where the technological talents of students get upgraded by addressing the real time problems faced by the society. This helps to fill the common lacuna which used to appear in engineering education. It is an excellent platform for technological students to understand the true field level challenges while implementing engineering principles and tackling them skilfully, as SWI provide opportunities for applying academics they study in the classroom to the field. Further, SWI facilitates the students to confront and resolve unforeseen difficulties while implementing projects which make them more suited for industry and thus in turn more successful in their career. Engagement of engineering students in solving the society related problems help them to be more responsible technological citizens of the nation. SWI focuses on the aspects related to urban water security & management through multidisciplinary efforts. SWI offered expertise on the areas like water quality monitoring & assessment; environmental modelling; water auditing; remote sensing & geographic information systems; policy development; eco restoration & watershed management; design of water & waste water treatment units; rainwater harvesting; water distribution network analysis; storm water management. SWI has emerged as a technical support provider for local self-governments in Kerala. It provides continued support to Kochi Municipal Corporation, Thrissur Municipal Corporation, Guruvayur Municipality, Meloor

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Grama Panchayath, Koratty Grama Panchayath, Kochi Metro Rail Ltd (KMRL), Cochin International Airport Ltd (CIAL) and various academic institutions in Kerala to address their environmental challenges.

Some of the projects undertaken include:

- Study on urban flooding in Thrissur Municipal Corporation
- Water Audit & Rain Water Harvesting Feasibility Assessment for Kochi Metro Rail Limited (KMRL)
- City Water Audit for Guruvayoor Municipality
- Development of Flood Preparedness and Response Plan for Meloor Grama Panchayath
- Background Study done for Developing a Water Management Plan for Meloor Grama Panchayat
- Leak Detection for Cochin International Airport Limited (CIAL, Kochi)
- Survey of Thevara Perandoor Canal, Kochi Municipal Corporation
- City Water Audit and Water Policy formulation for Kochi Municipal Corporation
- Water quality analysis & Water Quality Atlas for Koratty Grama Panchayath
- Green audit and Water audit for various Educational Institutions and Apartment Complexes

Projects Underway include:

- Development of a Water Management Plan for Koratty Grama Panchayat
- Smart KWA Network (Kochi water Information system)
- Abatement of Pollution of Rivers in Kerala – Kadambrayar and Kecheri
- Storm Water Management for Kalamassery
- Eco restoration of Bodi North Hills, Tamil Nadu

Students from various departments of SCMS School of Engineering & Technology choose to voluntarily work with SWI to get exposure on real life projects. A state of the science environmental engineering laboratory at SSET is currently facilitating the research and consultancy works of SWI. SWI focuses on the aspects related to urban water security management through multidisciplinary efforts. SWI offered expertise on the areas like water quality monitoring assessment; environmental modelling; water auditing; remote sensing, geographic information systems; policy development; eco restoration, watershed management; design of water, waste water treatment units; rainwater harvesting; water distribution network analysis; storm water management.

SCMS Water Institute has been working for almost a decade as knowledge partner to various local self-govemments in solving water related issues. This has significantly helped to improve the delivery mechanism of such local bodies to the public. Local self-governments may not always be having technological expertise to solve location specific and appropriate solution for water related challenges. Here engineering colleges could effectively provide hand holding help and support.

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A study had been done on Thrissur Municipal Corporation in order to understand the scientific reasons for urban flooding regularly experienced in Panchikkal and Puzhakkal region, and recommend solutions for the same. As we are aware urban flooding is becoming a catastrophic natural disaster all over Kerala. Therefore, the leaming of this study do not necessarily confined to Thrissur Municipal Corporation but will be ofvalue to any urban area that is prone to urban flooding in the state.

With a team of highly qualified and experienced persons, SCMS Water Institute focuses on wide range of issues related to urban water management through multidisciplinary efforts. SCMS Water Institute accomplishes its mission through research and development, technology incubation and application, education and training, demand driven consultancy and networking. Since its inception, Water Institute have been working closely with local self-governments in Kerala to address their water related environmental challenges and will continue to an influencing factor.

Evidence of Success

SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY (SSET)
SCMS Water Institute (SWI), Karukutty

https://www.scmsgroup.org/sset/water_institution/water_institute

Changes to *GENESIS, MISSION & VISION*

Add SWI logo (fig 1_logo in folder 'Genesis, Mission & Vision') near to heading, all remaining things under this tab should be maintained as such in the website

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https://www.scmsgroup.org/sset/water_institution/our_expertise

Changes to *OUR EXPERTISE*

- *(Replace the entire content with write up given below)*

SCMS Water Institute (SWI) focuses on the aspects related to urban water security & management through multidisciplinary efforts. Following are the areas of expertise offered by SWI.

- Water quality monitoring & assessment
- Environmental modelling
- Water auditing
- Remote sensing & Geographic Information Systems
- Policy development

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- Eco restoration & watershed management
- Design of water & waste water treatment units
- Rainwater harvesting
- Water distribution network analysis
- Storm water management

SCMS Water Institute (SWI)

AY – 2021-2022

https://www.scmsgroup.org/sset/water_institution/project_undertaken

Changes to *PROJECTS UNDERTAKEN*

- *(Replace the entire content with write up given below and add photographs corresponding to each)*

Abatement of Pollution of Rivers in Kerala – Kadambrayar and Kecheri

Water Resources Department, Government of Kerala as per the direction from National Green Tribunal was preparing Detailed Project Reports for pollution abatement of 21 rivers in Kerala. Out of these rivers, responsibility for preparing DPR's for 2 rivers namely, Keecheri and Kadambrayar were vested with SCMS School of Engineering and Technology (SSET). SCMS Water Institute (SWI) in association with Civil engineering department of SSET prepared the DPR for both rivers.

(Add fig 2 in the folder 'Projects undertaken' and give the title given below)

Sample collection done by SWI and SSET team from Kecheri and Kadambrayar rivers on January 12 & 14, 2021, for DPR preparation

SCMS Water Institute (SWI)

AY – 2020-2021

Water Audit & Rain Water Harvesting Feasibility Assessment for Kochi Metro Rail Limited (KMRL)

This is a feasibility study conducted for exploring the possibility of rainwater harvesting at metro stations of KMRL. It was done as per request of MD KMRL to SCMS management.

(Add fig 4 in the folder 'Projects undertaken' and give the title given below)

Honorable Justice Mr.Devan Ramachndran of Kerala High court, in the presence of Prof Pramod P Thevanoor, Vice Chairman of SCMS Group, and Mr Alkesh Kumar Sharma IAS (Addl Chief Secretary & MD KMRL) delivering the inaugural speech during the inauguration

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of pilot installation of a rainwater harvesting system at Companypady station on July 3, 2020, which was made as a model under the supervision of SWI

Smart KWA Water Distribution Network for Kochi (Kochi water Information system)

Department of Water Resources, Government of Kerala had approached the SCMS Group for providing knowledge partnership to develop a detailed technical report in order to convert the existing KWA water distribution network in Kochi into a smart network. This was a part of a decision of Department of Water Resources of the government to collaborate with engineering colleges which are having capabilities to provide technical support for doing such work. SCMS Water Institute is leading this project from the side of SCMS, where Department of Computer Sciences & Engineering as well as Department of Electronics and Communication engineering are also supporting Water Institute in this work.

(Add fig 13 in the folder 'Project underway_ current activities' and give the title given below)

Concept discussion meeting organized by SCMS Water Institute in association with senior officials of KWA, for developing Kochi water Information system towards creating a smart KWA network, at SSET on September 13, 2020

Storm Water management for Kalamassery

Flooding in Kalamassery is a regular feature. Therefore municipal councillors as well as representatives of resident's associations approached SCMS management to develop a storm water management plan for the watershed stretch extending from CUSAT to Edapilly thodu. Danish Hydraulic Institute is providing their technical support in this project and was kind enough to permit to use their software called 'Mike Urban Plus'.

(Add fig 14 in the folder 'Project underway_ current activities' and give the title given below)

Concept discussion meeting organized by SCMS Water Institute in association with DHI officials, for developing a storm water management system for Kalamassery on January 2021

SCMS Water Institute (SWI)

AY – 2019-2020

Study on urban flooding in Thrissur Municipal Corporation

Study was an investigation as per request from ward councilors of Thrissur Municipal Corporation in order to understand the scientific reasons for urban flooding which is regularly experienced in Panchikkal and Puzhakkal regions and recommend solutions for the same.

(Add fig 3 in the folder 'Projects undertaken' and give the title given below)

SWI pilot survey of water logged areas of Thrissur on September 28, 2019

Ecorestoration of Bodi North Hills, Tamil Nadu

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SCMS Group is preparing a 'Field Research Station' at Bodi North Hills, near Bodinakkannur, Tamil Nadu. This is a private land with an extent of around 100 acres and owned by Gaia Environmental Conservancy, Pvt Ltd. This was dry evergreen forest once but got degraded heavily due to massive felling of trees during the British period and used for the world war. SCMS Group is now trying to husband and nurse back to health the life supporting systems of this degraded land; primarily soil, water and biomass. SCMS Water Institute which is leading the team, is carrying out various ecorestoration initiatives in this land. A weather station developed by Department of Electronics and communication Engineering of SSET, has been established in this land for weather data collection.

(Add fig 15 in the folder 'Project underway_ current activities' and give the title given below)

SWI team taking flow measurements at Bodi Hills using the instrument sponsored by NIVUS GmbH, Germany on November 2019

SCMS Water Institute (SWI)

AY – 2018-2019

City water audit for Guruvayoor Municipality

This was a consultancy work advertised by Guruvayoor Municpality for conducting a city scale water audit for this pilgrimage town.

(Add fig 5 in the folder 'Projects undertaken' and give the title given below)

Prof Pramod P Thevanoor, Vice Chairman of SCMS Group, handing over the Guruvayur City Water Audit Report to Sri K V Abdul Khadeer, MLA of Guruvayur on January 7, 2019

Development of Flood Preparedness and Response Plan for Meloor Grama Panchayath

Immediately after the flood of 2018, Meloor Gramma Panchayat approached SCMS management for providing technical support to document the flood experienced within the Panchayat area and to prepare an plan for equipping the local body about the precautions to be taken in case of such a flood if happened in future.

(Add fig 6 in the folder 'Projects undertaken' and give the title given below)

Flood inundated map prepared by SWI for the development of flood preparedness plan for Meloor Panchayath

Background Study done for Developing a Water Management Plan for Meloor Grama Panchayat

Although Meloor Gramma Panchayat is surrounded by Chalakudy River on its three sides, this local body is experiencing severe droughts almost every year. Therefore upon the request of

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this local self-government to SCMS management, SWI conducted a study and prepared a Water Managment Plan for Meloor Panchayat.

(Add fig 7 in the folder 'Projects undertaken' and give the title given below)

Prof Pramod P Thevanoor, Vice Chairman of SCMS Group, handing over the report of "Background Study done for Developing a Water Management Plan for Meloor Grama Panchayat" to Sri P.P Babu, Mellor Panchayat President on February 27, 2018

Leak detection for Cochin International Airport Limited (CIAL, Kochi)

CIAL was experiencing a major leak in the water distribution network and the concerned authorities approached SCMS management to exactly locate the leak using the leak detection equipment which SWI possess. These equipments are given to SWI as per a MoU between SEWERIN GmbH and SCMS Group.

(Add fig 8 in the folder 'Projects undertaken' and give the title given below)

SWI team doing intensive investigations along the pipe line with the leak detection sensors donated to SCMS by the German company named SEWERIN on May 29, 2019

https://www.scmsgroup.org/sset/water_institution/our_mou

***Changes to** OUR MOU'S (change the title to 'OUR COLLABORATIONS')*

- *(Replace the entire content with write up given below and add photographs corresponding to each)*

➢ Danish Hydraulic Institute

Danish Hydraulic Institute (DHI) is a global leader in solving world's toughest challenges in the water environments. DHI and SCMS Water Institute collaborate to conduct technical webinars and training programmes for students, scientists from research institutes, faculty from engineering colleges and engineers from the Department of Water Resources, Government of Kerala. DHI has also provided internships for SCMS students. This industry- academia- research collaboration between DHI India & SCMS is now in the process of establishing a 'MIKE Computational Lab" at SSET.

(Add fig 20 in the folder 'Our collaborations' and give the title given below)

DHI conducting training programs and webinars on MIKE+ software at SSET in association with SWI on January 2021

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https://www.scmsgroup.org/sset/water_institution/news_media

***Changes to** NEWS/MEDIA WRITE-UPS ABOUT SWI*

- *(Delete the present article and add the pictures fig 21 to fig 43 from the attachments in folder 'News Media write-ups about SWI' in the same order) note: fig 21 is the latest article, so it should appear first when the link/tab is opened.*

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https://www.scmsgroup.org/sset/water_institution/partners_funding

***Changes to** PARTNERS AND FUNDING*

- *(Delete entire tab and its content from the website)*

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https://www.scmsgroup.org/sset/water_institution/director_profil

***Changes to** DIRECTOR'S PROFILE*

- *(Change the Director's profile with following write up)*

Dr. Sunny George, a limnologist of international repute is the Director of the SCMS Water Institute. He has special expertise in standardizing and fine turning several laboratory level concepts and ideas and convert them into socially relevant projects and programmes. Dr. Sunny George has been awarded fellowships by the Council of Scientific & Industrial Research (CSIR) New Delhi, Belgian Royal Institute of Natural Science, Brussels, Belgium, United Nations University, Tokyo, the United States Department of State, Washington D.C. and the Federal Foreign Office, Germany.

He has 25 years of experience in research, consultancy and implementation of development projects and has worked in several European Universities and Institutes. He was a part of water-related missions from India to the United States and Germany.

- *for the name **Prof. Dr. Johannes Fritsch** – upload the document named 'CV_Johannes Fritsch' in the folder 'Directors profile' and give a link to that in his name*
- *below **Prof. Dr. Johannes Fritsch, Scientific Advisor** add the name '**Prof. Dr. John Tharakan, Scientific Advisor**', (then attach the photo 'fig 44_John Tharakan' in the folder 'Directors profile' and also upload the document named 'CV_ John Tharakan' in the folder 'Directors profile' and give a link to that in his name)*
- *Remove the title 'TEAM SWI' and photo given below it*

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- *Add a new tab below **'DIRECTOR'S PROFILE'** with title as **'PEOPLE'** and inside that tab, include the following content:*

SCMS Water Institute (SWI) has a team of highly qualified and experienced persons capable enough to solve wide range of water related problems faced by the society. In addition, Water Institute also provide research support and guidance for the conduct of an M.Tech programme in Environmental Engineering at SCMS School of Engineering & Technology. A state of the science environmental engineering laboratory at SSET is currently facilitating the research and consultancy works of SWI. Following are the people affiliated to SWI at the moment.

Sr No.	Name	Area of expertise
1	Dr. Sunny George	Limnology, Watershed Management, Eco Restoration, Water Audit, Policy Development, Consultancy Management, Multi-Disciplinary Research on Water
2	Dr. Ratish Menon	Environmental Modelling & Monitoring, Modelling, Data Analytics, Environmental Auditing, Policy Development, Technology Advising
3	Dr. Nisha Luckins	Microplastics in Aquatic Environment, Organics in Water, Natural Methods of Purification of Water, River Bank Filtration, Solid Waste Management
4	Ms. Sanju Sreedharan	Water Quality Analysis, Water Treatment Plant Design, Fuel Cells for Energy from Waste
5	Dr. Akhila M	Environmental Geotechnology
6	Ms. Roshni K R	Water Pollution Control
7	Ms. Merin Mathew	Biomonitoring, Water Quality Analysis, Hydrological Modelling
8	Ms. Praseeja A.V	Contaminant Transport Modelling, GIS & Remote Sensing, Soft Computing
9	Ms. Sruthy M.R	Environmental Geotechnology
10	Ms. Meera Varghese	Wastewater Treatment System Design
11	Ms. Sruthy Robert	Microplastics Pollution, Hydrological Modelling

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- *Give the following links to the above listed names*
  - *Dr. Sunny George: https://www.scmsgroup.org/sset/water_institution/director_profil*
  - *Dr. Ratish Menon: https://www.scmsgroup.org/sset/civil-engineering/dr-ratish-menon*
  - *Dr. Nisha Luckins: https://www.scmsgroup.org/sset/civil-engineering/dr-nisha-l*
  - *Ms. Sanju Sreedharan: https://www.scmsgroup.org/sset/civil-engineering/mrs-sanju-sreedharan*
  - *Dr. Akhila M: https://www.scmsgroup.org/sset/civil-engineering/dr-akhila-m*
  - *Ms. Roshni K R: https://www.scmsgroup.org/sset/civil-engineering/ms-roshni-kr*
  - *Ms. Merin Mathew: https://www.scmsgroup.org/sset/civil-engineering/merin-mathew*
  - *Ms. Praseeja A.V: https://www.scmsgroup.org/sset/civil-engineering/praseeja-av*
  - *Ms. Sruthy M.R: https://www.scmsgroup.org/sset/civil-engineering/sruthy-mr*
  - *Ms. Meera Varghese: https://www.scmsgroup.org/sset/civil-engineering/meera-varghese*

Add the fig 45 in the folder 'People' below the above table

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https://www.scmsgroup.org/sset/water_institution/training_capacity

***Changes to** TRAINING AND CAPACITY BUILDING*

(Delete entire data and add the content given below in this order itself, also add photographs corresponding to each at specified positions)

- "**Training on MIKE+ Water Distribution**" by SWI, SSET & DHI, At SCMS School of Engineering and Technology, Karukutty January 18, 19 & 20, 2021

  A three day training program on MIKE+ where conducted by the Danish Hydraulic Institute officials, Abhilash Ajaykumar, the Managing Director of DHI-India, Manish Kumar, Senior Water Resource Engineer and James E Samuel, the Assistant Manager in association with SWI, SSET for various groups of people.

  On the first day an online webinar was conducted for M.Tech Environmental Engineering students of SSET based on the water distribution system using MIKE Urban+. On the second day back-to-back meetings were conducted with the officials of Kerala Water Authority and Kerala Engineering Research Institute with an upcoming collaboration in their projects. On the third day, training in the water distribution of MIKE+ was conducted for officials from Kerala Engineering Research Institute (KERI), Centre for Water Resources development and management (CWRDM), National Institute of Technology, Calicut (NIT-C), SSET staff and interns of SWI.

  (Add fig 46 in the folder 'Training and capacity building' and give the title given below)

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VIDYA NAGAR, KARUKUTTY, ERNAKULAM – 683576, PHONE: 0484-2882900, 2450330
E-Mail: sset@scmsgroup.org Website: www.scmsgroup.org/sset

Inaugural speech by Mr. Abhilash Ajaykumar, Managing Director of DHI-India during the inaugural ceremony of 'Training on MIKE+ Water Distribution' in association with SWI at SSET on January 20, 2021

- **"Efficient Water Use – Waste and Waste Water Management"** - DAAD German Alumni Seminar, October 9 to 15th, 2019

German Academic exchange programme (DAAD) has selected SCMS Water Institute as Indian partner in order to conduct a six day long workshop on "Efficient Water Use – Waste and Waste Water Management" from 09th to 15th October 2019 at Kochi on behalf of its Alumni program. It took place at the SCMS COCHIN SCHOOL OF BUSINESS CAMPUS, ALUVA, KOCHI. It is for the first time that this expert seminar is being conducted in India, outside IIT BOMBAY.

The objectives of the seminar will reflect the topics of the trade fair: Water management, Water sewage, Reuse and recycling. In preparation of IFAT India, existing contacts between educational institutes, authorities and the business sector in South India will be demonstrated. Concepts shall be developed to improve cooperation on national as well as on international level in the South Asian region. Alumni shall demonstrate links between private sector, Government institutions and Universities in their home countries and develop mechanisms.

20 selected Alumni from various countries in Asia who availed German Academic Exchange Fellowship to do research in Germany, along with 6 renowned senior professors from various German universities participated in this workshop. Selected leading Indian experts in the water sector are also gave presentations about the state of the art developments of this field in India.

(*Add fig 47 in the folder 'Training and capacity building' and give the title given below)*

Inaugural speech by Honourable Mr. Karl Philipp Ehlerding, Consul General of Germany in Bengaluru, during the inaugural ceremony of DAAD German Alumni Seminar in association with SWI on October 9th, 2019

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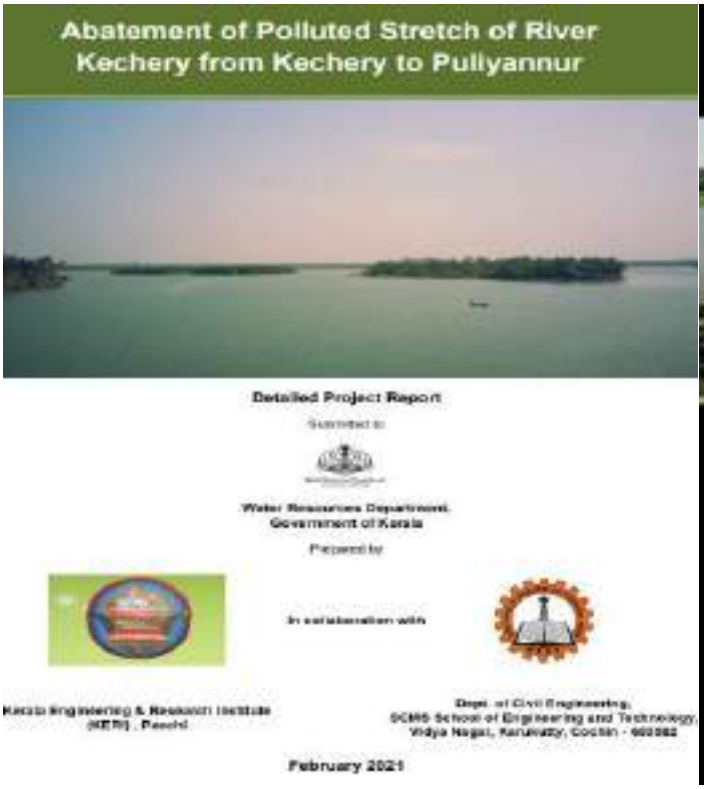

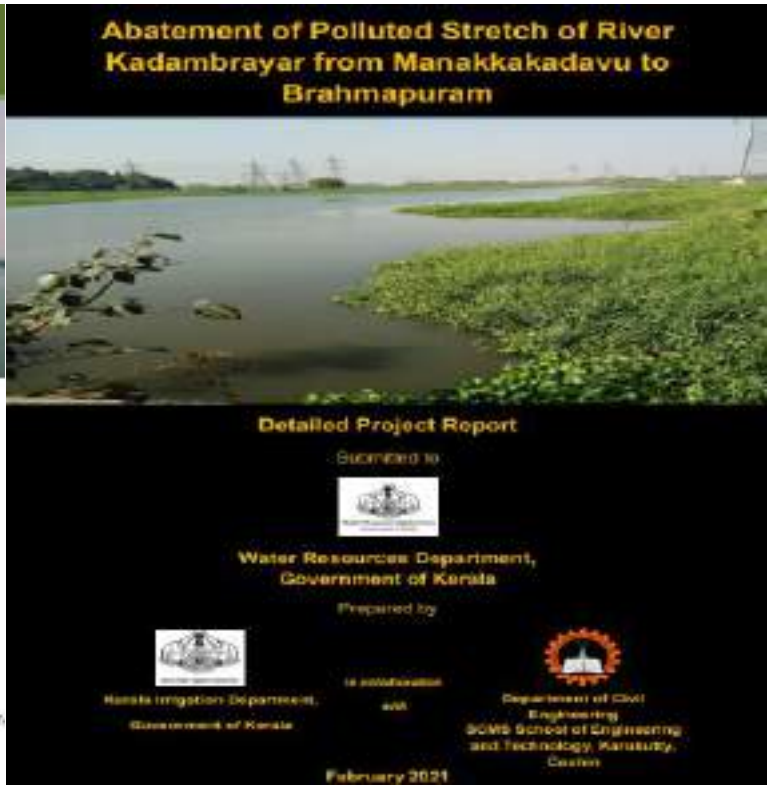

Three Day Training on MIKE+ Water Distribution

18, 19 & 20th January 2021

at

SCMS School of Engineering & Technology Karukutty

Report of Market Canal Visit by SCMS Water Institute on March 30th, 2022

As part of the Integrated Urban Regeneration and Water Transport System (IURWTS) Project, SCMS Water Institute members visited the Market Canal in Kochi along with the members from Kochi Water Metro and Antea Group consultants on 30th March, 2022. The following observations and suggestions were made

1. The canal is highly polluted with domestic sewage and solid waste. Wastewater flow into the canal is mostly through the storm drains discharging into the canal. The vegetation growth inside the canal and the solid waste is obstructing the free flow. The canal is now stagnant and silted.
2. Canal rejuvenation efforts shall include a wastewater diversion and treatment strategy. Specially designed sewers that intercept the dry weather flow can be sent to GCDA Centralized treatment unit/new treatment plant before disposing into the estuary.
3. Alternatively, dredging of the entire canal stretch deep into the estuary will help in increasing the flushing out mechanism and dilute the wastewater pollution in the canal during the tidal periods.
4. Providing bar screens in the storm drains will prevent the inflow of solid waste into the canal through these drains.
5. The tidal influence in the canal prevent free flow from storm drains into the canal during HAT. This causes accumulation of storm water within the drains and may result in urban flooding especially when high tide coincides with heavy rainfall within the catchment. Increasing the volume of storm drains or creating sub surface storm tanks can increase the holding capacity and thereby reduce flooding in such situations. Exact design for these can be developed after detailed modeling studies.

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Eldho Thomas

From: mratishmenon@gmail.com
Sent: 16 December 2021 21:36
To: Eldho Thomas
Cc: Ajith A; csunnygeorge@gmail.com
Subject: Re: IURWTS - Technical Note on Control Structure for Market Canal

Sir,

After reviewing the report please find our comments below.

1) The proposal to have a permanent vertical drop weir in the market canal to prevent backflow during HAT conditions is not scientific. The weir will become an obstruction to the natural flushing of the canal and can also be a reason for urban flooding . NRVs will get clogged easily due to high solid content in the canal and frequent siltation will also be caused on the upstream side of the weir . Having a mechanical aeration system to control anaerobic conditions which could set in at the bottom of the canal due to impounding is not a sustainable solution.
2) The calculations shows that there is not much of an advantage in controlling water level fluctuations in the upstream section of canal and subdrains due to the proposed weir.
3) Our design calculations also shows that the base width of the proposed weir (if constructing) need to be 2 m and not 1.5 m.

Hope this helps.

Thanks & Regards,
Ratish

On Thu, Dec 9, 2021 at 1:51 PM Eldho Thomas <eldho.t@kmrl.co.in> wrote:

Sir,

Please find attached the technical note on providing Control Structure in Edapally Canal as part of IURWTS Project.


Innovation and Entrepreneurship Development Centre (IEDC)
SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY
Vidya Nagar, Palissery, Karukutty,
Cochin - 683 576, Kerala

KERALA STARTUP MISSION
SSET IEDC

SCMS WATER INSTITUTE

Report

One Day Workshop on WATER NETWORK MODELLING USING 'EPANET SOFTWARE'

Detailed Technical Report

ASSESSMENT OF STORMWATER MODELING OF KALAMASSERY MUNICIPALITY

Prepared by:

SCMS Water Institute
SCMS School of Engineering and Technology
Karukutty

Submitted to:

Kalamassery Municipality
Government of Kerala

MAY 2021

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Report of concept discussion meeting on developing Kochi water Information system towards creating a smart KWA network

Water Institute of SCSMS School of Engineering & Technology has organized a concept discussion meeting for developing Kochi water Information system towards creating a smart KWA network on 13/9/2020 at SCSMS School of Engineering & Technology. Senior officials of water resources department and senior faculties of SCSMS School of Engineering & Technology were participate in the meeting. Sri. Pranave Jythinath IAS, Special Secretary Water Resource's department, Sri. P Venkatesapathy IAS, Executive Director, Jala Jevan Mission & MD KWA, Smt. Mrunmayi Joshi IAS, Executive Director, Jalanidhi- KRWSA, Sri. Sreekumar Chief Engineer KWA, Sri. D. Biju Chief Engineer Irrigation Department, Prof. P Pramod Thevannoor, Vice Chairman of SCMS group, Dr. Praveen Sal, Principal, SCSMS School of Engineering & Technology, Dr. Sunny George, Director Water Institute SCSMS School of Engineering & Technology, Sri. Shyju P Thadathil , Executive Engineer KWA, Dr. P. Vinod, HoD Computer Science Department and Dr. Sunil Jacob, Director Robotic Center SCSMS School of Engineering & Technology led the concept discussion of the meeting.

Dr. Sunny George, Director Water Institute SCSMS School of Engineering & Technology has made a presentation about the need of smart network. In it he states that, a smart network will improve water use efficiency, reduce non-revenue water, support decision making and improve urban water security. He explained that a smart network could implement in three phases with in a period

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Detailed Technical Report

STORM WATER MANAGEMENT STUDY
AT
HPCL IRUMBANAM TERMINAL

Prepared by:

SCMS Water Institute
SCMS School of Engineering and Technology,
Karukutty

Submitted to:

Hindustan Petroleum Corporation Limited
Irumbanam Terminal