



FSM4 SPEAKER BIOS

DAY 3: WEDNESDAY, 22 FEBRUARY 2017

DAY 3, TRACK 1: RESEARCH

RESEARCH 3.1: DRYING & DEWATERING

1. SEPTIEN STRINGEL, S. et al., "LaDePa Process for the Drying and Pasteurisation of Faecal Sludge from VIP Latrines by the Means of IR Radiation, and Reuse of the Product", South Africa



Dr. Santiago Septien Stringel, Research Engineer

Pollution Research Group, University of KwaZulu-Natal, Durban, South Africa

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With a chemical engineering degree, Dr. Santiago Septien Stringel obtained a PhD on biomass gasification in 2011 and performed a post-doctorate in the same domain for two more years, in French research centres. During this period, he acquired an expertise in thermochemical processes (pyrolysis, gasification, combustion) and biofuels. In 2014, he joined the Pollution Research Group at the University of KwaZulu-Natal to supervise

master research projects funded by the Bill & Melinda Gates Foundation and the Water Research Commission. Actually, he continues as a research staff in the Pollution Research Group, and his main task is to support sanitation practitioners. His main expertise has become thermal processes for sanitation applications.

2. TREGO, A. et al., “Integrated Digestion and Nutrient Recovery to Enhance Value Extraction from Faecal Sludge Treatment”, UK



Anna Trego, PhD Student

Department of Microbiology, National University of Ireland Galway, Ireland

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Anna is a PhD student in environmental microbiology at the National University of Ireland, Galway, working on the microbiology and biotechnology of waste treatment. She is presenting on field- and lab-trials from Zambia.

3. SEMIYAGA, S. et al., “Dewatering Pre-Treatment of Faecal Sludge in Urban Slums”, Uganda



Swaib Semiyaga, Assistant Lecturer

Makerere University, Department of Civil and Environmental Engineering, Kampala, Uganda

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Swaib has been a researcher in the field of faecal sludge management for over six (6) years, working on dewatering and resource recovery from faecal sludge. He is in final stages of his PhD, focussing on “Dewatering” as a crucial step in urban slum-based faecal sludge management.

4. STRANDE, L. et al., “Faecal Sludge Dewatering: Two New Research Facilities for a Multi-Directional Approach”, Switzerland



Dr. Linda Strande, Senior Scientist

Sandec: Department of Sanitation, Water and Solid Waste for Development, at Eawag: Swiss Federal Institute of Aquatic Science and Technology. Switzerland

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Dr. Linda Strande is an environmental engineer with over 15 years' experience working internationally in the management of excreta, wastewater and sludge. Her research at Sandec includes optimisation of treatment technologies, innovation in resource recovery, quantification and characterization, and methods for sustainable systems level implementations.

RESEARCH 3.2: HEALTH, SAFETY, & HYGIENE

1. BERENDES, D. et al., “Urban Risk Factors Associated with Enteric Infection in Children: The Role Of Toilets, FSM, and Flooding in a Low-Income Neighborhood of Vellore, India”, India



Dr. David Berendes, Postdoctoral fellow

Brown Water Group, School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta, Georgia, USA

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WEBSITE: <https://scholar.google.com/citations?user=NqgPf8MAAAAJ&hl=en>

David is presenting a study of enteric infection and sanitation—including FSM—in low-income, dense urban environments. He is also presenting a poster describing the burden of FSM services on the poorest of the poor. His is an interdisciplinary epidemiologist concerned with environmental solutions to antimicrobial resistance in WASH-related diseases.

2. ROMA, E. et al., “Faecal Sludge Management in Urban and Peri-urban Areas of LMICs: Challenges and Sustainable Solutions”, UK



Dr. Elisa Roma, Research Fellow

Environmental Health Group, London School of Hygiene and Tropical Medicine, London, United Kingdom

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Elisa has been working with Prof Val Curtis, Dr Adam Biran and members of the Toilet Board Coalition to identify criteria for scaling up sanitation innovations and business models. In this presentation she outlines the preliminary results of a desk review of existing sanitation innovations for Low and Middle Income Countries.

3. YAKUBU, H., “Assessment of Public Health Risks from Unsafe Faecal Sludge Management in Accra”, Ghana



Habib Yakubu, Lead Public Health Program Associate

Center for Global Safe WASH, Emory University, Atlanta, Georgia, USA

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His primary research interests are environmental transmission of infectious agents and policy integration of scientific studies. He works on water, sanitation, hygiene and health in developing countries. Habib’s recent work has focused on the assessment of exposure to faecal contamination in urban cities in Ghana, Senegal, India and Mozambique.

4. SURAJA, R. et al., “Exposure to Faecal Contamination in 3 Low-income Urban Settings: Results from the SaniPath Tool”, India



Suraja Raj, MPH Senior Public Health Program Associate

Center for Global Safe Water, Sanitation and Hygiene at Emory University, Atlanta, GA USA

Suraja is research staff at the Center for Global Safe Water, Sanitation, and Hygiene at Emory University. She currently coordinates research and dissemination activities for “SaniPath: Assessment of fecal exposure and contamination in low-income urban environments,” a study funded by the Bill & Melinda Gates Foundation. She has been working on the study since 2013 and has lead SaniPath field work in India, Mozambique, and Cambodia.

RESEARCH 3.3: BIOTREATMENT – II

1. THOMAS, A. R. et al., “Decentralized Treatment Strategies For Septage Management”, India



Anu Rachel Thomas, PhD Research Scholar

Department of Civil Engineering, Indian Institute of Technology Madras, Chennai, Tamil Nadu, India

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Ms Thomas works with Prof Philip on a project entitled "Development of sustainable options for septage management" sponsored by DST, GoI. The team has successfully developed a co-composting system for septage management. Other projects include septage characterization, zero discharge toilets and evaluation of technologies for black water and faecal sludge treatment.

2. ARUMGAM, K. et al., “Development of On-site Faecal Sludge and Septage Treatment Techniques”, India

NO BIO AVAILABLE

3. DEY, D. et al., “From Research to Implementation: BRAC WASH Initiative for FSM in Urban Areas”, Bangladesh



Digbijoy Dey, Senior Sector Specialist

BRAC WASH Programme, Dhaka, Bangladesh

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Digbijoy Dey is the coordinator for the faecal sludge management in the Knowledge Management Unit at BRAC WASH Programme. His working areas are pathogen removal from faecal sludge, wastewater treatment and reuse of faecal sludge based organic fertilizer. He is going to present programme's research on urban FSM and implementation plan.

4. CHANDRAN, K. et al., “Faecal Sludge Biorefineries based on a Volatile Fatty Acid Platform”, USA



Prof. Kartik Chandran

Columbia University, Department of Earth and Environmental Engineering, New York, NY, USA

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Prof. Kartik Chandran works on the interface between environmental microbiology, environmental biotechnology and environmental engineering. Applications of his work have ranged from energy and resource efficient treatment of nitrogen containing wastewater streams, development and implementation of sustainable approaches to sanitation to novel models for resource recovery around the globe.

RESEARCH 3.4: PIT EMPTYING & SLUDGE ACCUMULATION RATES

1. DE LOS REYES, F. et al., "The Flexcrevator: An Improved Pit Emptying Technology with Trash Exclusion", USA



Dr. Francis de los Reyes III, Professor and University Faculty Scholar

North Carolina State University Civil, Construction, and Environmental Engineering Raleigh, NC, USA

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[http://www.ted.com/talks/francis de los reyes sanitation is a basic human right](http://www.ted.com/talks/francis_de_los_reyes_sanitation_is_a_basic_human_right)

My research includes technologies across the sanitation chain, including the Flexcrevator- an auger-based pit emptying system, microbial analysis of pit contents and pit emptiers' PPE, CFD simulations of low flush toilets, optimization of FS collection and transport, and treatment and reuse of FS.

2. RADFORD, J. et al., "Physical and Financial Performance of Pit Emptying Technologies", UK



Jamie Radford, Chartered Civil Engineer

Mott MacDonald, Cambridge, UK

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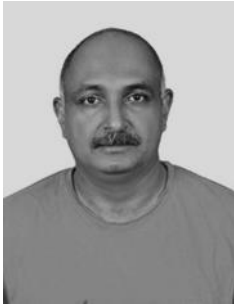
WEBSITE: www.mottmac.com

An engineer with varied urban sanitation experience in India, Bangladesh and Uganda, Jamie has particular expertise in pit emptying technologies and physical characterisation of faecal sludge. He has developed a tool for rapidly assessing sludge strength that could be used at city-scale to inform plans for emptying and treatment technologies.

3. DE LOS REYES, F. et al., “Designing the Next Generation of Pit Emptying Technologies Using a Workshop Approach”, USA

See RESEARCH 3.4

4. RAMAN, R. et al., “Promoting safe on-site sanitation in urban Tamil Nadu: Case Study of Tiruchirapalli and Periyanaickenpalayam”, India



Rajiv K Raman, Senior Advisor

IIHS, Tamil Nadu Urban Sanitation Support Program, Chennai, India

EMAIL: rajiv.raman@gmail.com

Rajiv has more than 20 years of experience in research and consulting in for Govt. of India and States, bilateral, multi-lateral and non-govt. organizations. His areas of work include public service delivery and governance especially in water and environmental services and electricity supply. He is a Senior Advisor to the TNUSSP that is assisting the Government of Tamil Nadu in its Mission of “Fully Sanitised Tamil Nadu”.

RESEARCH 3.5: BROAD FSM

1. RAVIKUMAR, J. et al. “Financing Non-network Systems for Small Towns: An exploratory analysis”, India



Dr. Joseph Ravikumar, Senior Water and Sanitation Specialist

World Bank, New Delhi, India

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He has assisted the Govt. of India in developing the septage management advisory and the Govt. of Tripura on a state septage management strategy and designed septage treatment facility for a cluster of towns.

2. DESHUSSES, M. et al., “Odors and FSM: Impacts and How to Deal with the Stench”, USA



Marc Deshusses, Professor of Civil and Environmental Engineering and of Global Health

Duke University, North Carolina, USA

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Dr. Deshusses' research focuses on the development and optimization of innovative waste treatment and sanitation processes. His work is being deployed into the field.

3. PILLAY, S. et al., “From Research to Commercialisation and Uptake of Sanitation Technology Innovations: The WRC Pour and Low Flush Experience”, South Africa

Presented by David Still



David Still, Director

Partners in Development, Pietermaritzburg, South Africa

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David is a Civil Engineer working mainly in the water supply and sanitation field. He has researched various aspects of FSM, including pit filling rates, pit emptying technology and alternatives to the VIP such as the pour flush. On behalf of South Africa’s Water Research Commission he was responsible for organizing FSM1 and FSM2.

4. TILLEY, E. et al., “The Informal Economy of Pit Emptying in Blantyre, Malawi”, Malawi



Dr. Elizabeth Tilley, Senior Lecturer

Department of Environmental Health, University of Malawi, the Polytechnic, Blantyre, Malawi

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As an engineer and an economist Elizabeth is interested in the technological and financial drivers for sanitation uptake and use. After being based in Switzerland for 10 years and travelling too much, she is now based in sunny Malawi where she lectures, supervises and conducts research on topics related to drinking water, faecal sludge and solid waste management.

RESEARCH 3.6: ANAEROBIC & CHEMICAL TREATMENT

1. BOURGAULT, C. et al., “The Suitability of Specific Methanogenic Activity Test For Modelling the Ammonia Inhibition of Anaerobic Digestion of Faecal Sludge Samples”, Canada

NO BIO AVAILABLE

2. NORDIN, A., “Ammonia Sanitisation for a Safe Use of Sewage Fractions – From Theory to Practice”, Sweden

NO BIO AVAILABLE

3. REDDY, M., CLIFFORD, G., “Stabilization of Faecal Sludge through Anaerobic digester at Devanahalli”, India



Dr. Y. Malini Reddy, Associate Professor

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Dr. Malini has 20 years of academic, consulting and entrepreneurial experience in apparel, retail, hospitality, education and social sectors. She brings management and marketing expertise to her work in urban sanitation, smart cities and public service design and delivery. She is committed to bring change at grassroots level with a particular focus on social marketing, ICT for development, gender mainstreaming and inclusive markets.

4. SENEAL, J. et al., “Inactivation Of Ascaris In Urine By Drying In Calcium Hydroxide For Application In The Autarky Toilet”, Sweden

NO BIO AVAILABLE
