# SAHAND IMAN SHAYAN

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### **EDUCATION**

University of South Florida
PhD Student Civil and Environmental Engineering
University of Bologna
M.Sc. Chemical and Process Engineering
Sahand University of Technology
B.Sc. Chemical and Process Engineering

#### **RESEARCH INTERESTS**

- Water and wastewater treatment
- Algal research in resource recovery and nutrient removal
- Biofilm technology for biomass harvesting and bioproducs production
- Bioprocess engineering of mixed culture systems with forced conditions of growth
- Bioethanol production from lignocellulosic feedstock based on sustainable pretreatment

#### EXPERIENCES

#### **Research Assistant**

University of South Florida

 $\cdot\,$  Modeling and optimization of shortcut nitrogen removal in algae-bacteria bioreactor

#### **Process Engineer**

Arka Sustaiable Process Co

- $\cdot$  Design and operation of 500lit rotating algal biofilm reactor for biomass extraction
- $\cdot\,$  Design and Operation of Small Scale Anaerobic Digester of Domestic Municipal Waste

# Visiting Scholar

Utah State University

 $\cdot$  Technology of rotating algal biofilm reactor in was tewater treatment, nutrient removal and Lipid - Starch accumulation

# Graduate Researcher

University of Bologna

- $\cdot\,$  Study on Microalgae and 3rd Generation of biofuels
- Sustainability analysis of bio-ethanol production from lignocellulosic feedstock

# Undergrad.Research Assistant

Sahand University of Technology

- $\cdot$  Aerobic granulation in airlift reactor for industrial and municipal wastewater
- $\cdot\,$  Feasibility of physicochemical color removal in combination with biological method

- Aug 2017 Present
- Jul 2016 Jul 2017

Mar 2015 - Sep 2015

Sep 2013 - Sep 2014

Jul 2009 - Jul 2013

# Aug 2017 - Present

2013 - 2015

2008 - 2013

#### SKILLS

#### **Computer Programming and Softwares**

C/C++, MATLAB, ASPEN, HYSYS, COMSOL, AQUASIM, AutoCAD, MS Office

#### **Analytical Skills**

Chromatography, Spectrophotometer, Zeta Potential Analyzer, qPCR

#### Language Skills

English, Italian, Turkish, Persian

#### AWARDS AND ACHIEVEMENTS

- 1st ranked presentation of engineered solution for a problem in USF competition (2018)
- Outstanding reviewer for journal of Water Reearch (2017)
- Outstanding reviewer for journal of Algal Research (2016)
- 11000 euro study grant for international students at University of Bologna (2013-15)

# PUBLICATIONS AND PRESENTATION

Sahand Iman Shayan, Foster A. Agblevor, Ronald C. Sims, Lorenzo Bertin Hydraulic retention time effects on wastewater nutrient removal and bioproduct production via rotating algal biofilm reactor Bioresource Technology, 2016, Bioresource Technology 211 (2016) 527533

Sahand Iman Shayan, Maryam Hosseini, Sabra Rostami, Sirous Ebrahimi,Combined biological and physicochemical processes for treatment of bakers yeast wastewater, Environmental Engineering and Management Journal, 2012 , 11(3)-S49, and presented in the international conference of Environmental Microbiology and biotechnology, in the frame of the Knowledge-Based Bio and Green Economy, Bologna, Italy, April 10-12, 2012

Chiara Toni, Martin Cipola, Gheorghe Falca, Sahand Iman Shayan, Bioethanol production plant - pretreatment with diluted acid University of Bologna, JANUARY 2015, DOI: 10.13140/2.1.2838.8648

#### REFERENCES

#### Dr. Sarina Ergas

Professor, Department of Civil and Environmental Engineering, University of South Florida Phone: (813) 974-1119, Email: sergas@usf.edu

#### Dr. Qiong Zhang

Associate Professor, Department of Civil and Environmental Engineering, University of South Florida-Phone: (813) 974-6448, Email: qiongzhang@usf.edu

#### Dr. Ronald Sims

Professor, Biological Engineering Department, Utah State University Phone: (435) 797-3156, Email: ron.sims@usu.edu