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## EDUCATION

2000-2004

**Russian State University of Oil & Gas “Gubkin”, Russia, PhD in Technical Science**

- **PhD thesis title:** “Hydrogen-Free Reformer on a Mixed bed of Heterogeneous catalysis “Al<sub>2</sub>O<sub>3</sub>-CoO-MoO<sub>3</sub> + High Silica Zeolite” for Obtaining High-Octane Gasoline”

1995-2000

**Polotsk State University of Oil & Gas, Belarus, M.S. in Chemical Engineering**

## PROFESSIONAL EXPERIENCE

2019- Present

**Research Officer, Smart Wave Plus, Egypt**

- Lead a research for development of the “existing” Oxygen Generator system “PSA technology” using a new concept “new combination of Zeolite/absorbent” for continuous production of pure oxygen to generate & supply **Ozone** gas currently required by various Egyptian’s end users being Water & Environmental Solutions. Till date, 3 units “as a PILOT Units” were deployed and are currently used and successfully operating at 3 sites “i.e. Water purification plant, Sterilization of mineral water, and Vegetables and fruits container sterilization”. No major defaults were reported till date and the operation performance is still under continuous monitoring, evaluation and development.
- Lead a research for development of Oxygen Generator device for the production of continuous pure oxygen **at large-scale industrial level**, and therefore replace the air supply to the combustion systems “i.e. engines & burners” so as to reducing the fuel consumption “natural gas”. Till date the research is continued at LAB stage and the results **obtained recently** were encouraging and successfully have proved that supplying the burners with the pure oxygen gas generated by our device have led to a reduction of the fuel “natural gas” consumption to a level of 28-30% compared to the consumption using typical air supplying scenario. The research will continue and the PILOT stage shall hopefully start soon pending the availability of certain technical & financial resources to evaluate the feasibility of such system.

2019- Present

**Research Assistant, Seashell Energy Company, Egypt**

- Being working for a company involved in promotion and implementation of clean-energy related solutions and services in Egypt, I am currently involved in conducting research works for treatment of the oily wastewater and sludge of Al Alexandria Oil Refinery using a combination of heating and chemical additives offered by deferent suppliers including chemical-based and enzymes-based additives. So far, more than 20 lab tests were conducted at different conditions and ratios and the work is underway with the hopes to reach a level of < 500 PPM of oil in water with a level of COD < 200 PPM.
- Lead a research for identification of a potential renewable geothermal sources at different sites in Egypt for the production of a geothermal electric power generation plant. So far, **the current results of the pre-identified sites are encouraging** and the feasibility study is underway by specialized international consortium “ Man Solution + GAG” and expected to be completed by February 2022 before more technical studies are taken “such as Conceptual Design, FEED, Basic Design, Detail Design, EPC....etc.” which are expected to take off by the 3rd quarter 2022.

2005- Present

**Executive Manager/Environmental Specialist, CORAL for Environmental Services, Yemen**

- As an owner and Environmental Specialist in the company, I had successfully & timely managed to plan, coordinate, implement, perform and deliver several environmental-related tasks/studies including EIA, ESIA, ERA, EMP, as well as GHG/climate changes related reports & studies for the respective entities, industries and international oil companies operating in Yemen.

2008- Dec 2014

**Senior Environmental Consultant “Part Time”, Environment Protection Authority, Yemen**

- Review, assess and advice on the existing environmental impact assessment legislation, environmental protection legislation, land planning laws, and engineering regulations, codes and standards as part of various feasibility/environmental impact studies.
- Expert reviews of EIA submissions

2008- Dec 2016

**Environmental Adviser, “Part Time”, Hayel Saeed Anam & Co., Yemen**

- Provide environmental review and advisory services for the Group’s existing manufacturing facilities and expansion projects scattered around the country such as Cement factory in Lahaj, Wheat Flour Mills Facilities in Aden, Sugar Refining in AL Hodidah , Biscuits and Confectionery factory in Taiz, Vegetable oils, ghee factory in Taiz, Food & Beverages Factory in Taiz, Power Plant in Aden.
- Advice the corporate in any matter related to sustainability and environmental management; and present to the owner an overview of the applicable Regulations as well as an information document to comply with the requirements of the EIA Regulations
- Undertake a range of due diligence audits for the existing manufacturing facilities/operations, including the review of legal requirements, implementation activities of an EMS and risk management system

(e.g. documentation review) as well as technical issues such as waste management, hazardous substances storage and handling and effluent control.

- Liaison with regulatory authorities “national and local” and stakeholders on compliance with environmental legislation.

2014- July 2019

**Techno-Commercial Consultant** “Part Time”, **YSN for Solar Energy System Cop**, Yemen

- Part time consultant providing techno-commercial consultancy & researches in the renewable energy field “including technical & financial feasibility” and approval/supervision of the installation works of projects implemented. More than 75 works “solar-operated pumps” were successfully executed in lieu of “diesel-operated pumps” in the agriculture sector alone.

## RELAVENT PROFESSIONAL EXPERIENCE

2013-2019

**Project Team Leader**, SAFER, Pro. & Eng. Dep, **153 MMUS\$ Grassroots Oil Terminal Project**, Yemen

- Managed all contractual aspects of the project during pre-award stage including float the tender documents, select the successful bidders and negotiate, finalize and award the contracts to EPC/PMC Contractor/s “Mott MacDonald, SOFEC, Triune, CTL Ltd.”
- Led, controlled and managed all project’s “post-award” technical & management aspects ensuring the performance, accuracy and quality of all EPC's engineering works are in compliance with project SOW, specifications & contractual requirements, and the overall & site progress is in accordance with the project scope, HSE plan, schedule and budget.
- Since Jan 2016 onward “Crisis Inception & Projects hold”-administrating & managing various techno-commercial aspects related to the existing subcontracts “services & modification subcontracted works”.

2012- 2013

**Project Management Team Leader**, **ANSAN Ltd**, 75 MMUS\$ *Grassroots CPF & Pipeline Project*, Sudan

- Managed all projects “post-award” activates including contractual & management aspects and ensured EPCs, PMC and other subcontractor’s plans, works and progress are fully implemented in accordance with the agreement.
- Delivered & commissioned the project “South Annajma production Block 17 facility“ per the agreed schedule & budget.

2008- 2011

**Project Engineer**, **HOODOIL Ltd**, Projects Dep. *Existing “JV” Surface Facilities*, Yemen

- Reviewed, approved and supervised the execution of all modification “expansion” projects/works that were required to maintain and/or increase the production rate at the JV’s existing surface processing facilities “Block-9”.
- Represented the owner ‘HoodOil” in various JV’s committees including Joint Operation Committee “JOC” and Tender Committee “TC” as well as Joint Production Committee “JPC” with Gov./Partners “Calvalley/Reliance” ensuring owner’s interests are protected.

2005- 2007

**Chemical Engineer**, **HOODOIL Ltd**, Eng. Dep., 450 MM\$ *Grassroots Ras Issa Oil Refinery Project*, Yemen

- Acted as a resident engineer based at EPCC "Hyundai" home office responsible for handling project design aspects including review, discuss and comment on the issued engineering documents such as Conceptual & Basis of Design, Plot Plan, HMB, PFDs, UFDs & PIDs ensuring meanwhile all input/comments of the involved EPCC, Process Licensor and PMC are well considered & incorporate.

2004- 2005

**Contract Engineer**, **HOODOIL Ltd**, Eng. Dep. *Grassroots Ras Issa Oil Refinery Project*, Yemen

- Took part in reviewing, negotiation, finalization and award of all refinery related technical & commercial Project’s agreements contracts including: Feasibility Study; FEED; EIA Study; EPC for ISBL, EPC for OSBL; Licensed Units Technology Transfer (AXENS); PMC and. Jetty agreement.

## TEACHING ACTIVITIES

**Instructor**, Oil & Gas Dep, Emirates International University, (Spring 2018)

-Taught lectures on Health & Safety in Chemical Industry “third course”

**Invited lecturer** for Al Hadarah undergraduate Impact of-Climate Change course, Al Hadarah University (Oct. 2016, Nov. 2015)

**Invited Speaker** on undergraduate scientific board, Shabwa University (June 2015; July 2016)

## PRESENTATIONS & CONFERENCE PAPERS

- ✓ “Gasoline Quality & the Local Industrial Trend: Additives vs. Import Blending Scenario”; Faculty for Oil & Minerals, Aden University; Aden, Yemen, February 2019
- ✓ “Air Quality in & Around Marib Oil Refinery”, Ministerial Office of Oil & Minerals (MOM), Marib Branch, Yemen; January 2017

- ✓ “Masila Gas Utilization: The Prospect”, Hadramaout Governor Office, Hadramout, Yemen, August, 2011
- ✓ “Yemen NGL Recovery/Ethane Cracker- Discussion Base”, Ministry of Oil & Gas (MOM), Sana’a, Yemen, February 2008
- ✓ “Production Sharing Agreements: New Trends” Ministry of Oil & Gas (MOM), December 2007; Petroleum Exploration and Production Authority +(PEPA), January 2008; Environmental Protection Authority (EPA), Sana’a, Yemen, January 2008
- ✓ “Prospects of Development Petrochemical Industry in the Republic of Yemen”, Shabwah Faculty for Oil & Minerals (SFOM), Aden University; Shabwah., July 2007
- ✓ “The Marine Ecology in the Red Sea Coast: Ras Issa Peninsula As an Example”, Environmental Protection Authority (EPA); Sana’a, Yemen, May 2005.
- ✓ Могалес М.А., Колесников И.М., Глаголева О.Ф., Колесников С.И., Винокуров В.А., Никонов В.И. //Каталитический риформинг в присутствии смеси оксидных катализаторов.// Н-т. конф. "Актуальные проблемы состояния и развития нефтегазового комплекса России"- М.: 2003, с.ю. **Mogales** M.A., Kolesnikov I.M., Glagolava O.F., Kolesnikov S.I, Vinocorav V.A, Nikonov .И. //Catalytic Reforming on the mixture bed of oxide catalysts// Abstract for the Annual Research – Technical Conference," Actual Problems for the development of the Russian oil and gas complex"; Gubkin University- Moscow.: 2003, 5<sup>th</sup> P. (*Highlighted about in the 1<sup>st</sup> para, p. 27 in the following web link*)

## PUBLICATIONS

- ✓ Колесников С.И., **Могалес** М.А., Никонов В.И., Колесников И.М. //Влияние температуры на процессе безводородного атмосферного риформинга.// ХТТМ, 2003, №1, с.57-58, Kolesnikov S.I., **Mogales** M.A., Nikonov V.I., Kolesnikov I.M; //Effect of Temperature on Hydrogen–Free Atmospheric Reforming//Journal of Chemistry and Technology of Fuels & Oils, 2003, Issue 1, P. 67-69.
- ✓ **Могалес** М. А., Колесников С. И., Колесников И. М., Никоно В. И. //Влияние температуры на состав углеводородного газа и свойства риформата//; Нефтепереработка и нефтехимия; 2004, N 5.-С.18-21 **Mogales** M.A., Kolesnikov S.I., Kolesnikov I.M., Nikonov V.I. //Effect of Temperature on the Quality of Gas & Reformate//Journal of Chemical & Oil Refining, 2004, Issue 5, P. 18-21
- ✓ **Могалес** М.А, Колесников С.И., Колесников И.М. //Активность механической смеси катализаторов на процесса риформинга// ХТТМ, 2006, №42, с.133-141, **Mogalis** M.A., Kolesnikov S.I., Kolesnikov I.M //Activity of mechanical blend of catalysts for reforming process//; Journal of Chemistry and Technology of Fuels and Oils; March 2006 Volume 42, Issue 2,pp 133–141

## ADDITIONAL PUBLICATIONS “posts”

- ✓ “Estimation of GHG Emission from Marib Oil Refinery”, **Post, January 2017**
- ✓ “Hazardous & Solid Waste Management in Yemen-Applicable Environmental Requirements and Laws”, **Post on February 17, 2016;**
- ✓ “EIA Requirements for Petroleum Projects - Applicable Environmental Regulations in Yemen”; **Post, May 2011**
- ✓ “An Overview of Marine Ecology in Ras Issa Peninsula, Red Sea Coast”, **Yemen, Post on April, 2005**

## LANGUAGES

Arabic: Native; English & Russian

## NATIONALITY & AGE

Yemen, August 1975

## SKILLS and RESEARCH INTERESTS

Sound knowledge of, and a strong interest, in doing researches in the *Environmental field* “e.g. Pollution Reduction, Wastewater Treatment, Renewable Energy Resources, and/or Climate Change aspects” OR *Chemical Engineering* “e.g. Catalysts and/or Energy Optimization”