

Delta Section

NEWSLETTER

Volume 35 No. 3

NOVEMBER 2018

REGISTER ONLINE:
<http://connect.spe.org/delta/home>

LOCATIONS:

North Shore: Chevron
100 Northpark Blvd
Covington, LA 70433

South Shore: Holiday Inn Superdome
330 Loyola Avenue
New Orleans, LA

Computer: Computer Access Only
Attend from your home
or office

Northshore - \$20

Southshore - \$25

Computer Only - \$5

Please remember: All attendants must be pre-registered to attend the North Shore Live Telecast or the Southshore Live Presentation.

For questions or comments,
please contact:

Michael Waguespack
Michael.Waguespack@wsnelson.com
Programs Chairperson 2018-19

SPE Nov. General Meeting and Luncheon

Thursday • November 15, 2018

11:00 am - 12:30 pm

Speaker Presentation will begin approximately 11:40 am
Holiday Inn Downtown Superdome • 330 Loyola Ave • New Orleans, LA

1 PDH will be provided

Big Data Analytics: What Can It Do for Petroleum Engineers and Geoscientists?

SPE Delta Distinguished Lecturer

Dr. Srikanta Mishra

Institute Fellow and Chief Scientist (Energy)
Battelle Memorial Institute



Abstract

Big data analytics has become quite the buzzword in recent years, and its growing application in E&P operations promises to be an exciting new development. It involves: (1) acquiring and managing data in large volumes, of different varieties, and at high velocities, and (2) using statistical techniques to "mine" the data and discover hidden patterns of

association and relationships in large, complex, multivariate datasets. The ultimate goal is to extract as much intelligence from our ever-expanding trove of data to improve operational efficiencies and make better decisions for optimizing the performance of petroleum reservoirs. However, the subject remains a mystery to most petroleum engineers and geoscientists because of the statistics-heavy jargon and the use of complex algorithms.

In this talk, I will provide a "gentle" introduction to big data analytics by focusing on: (a) easy-to-understand descriptions of the commonly-used concepts and techniques, (b) broad categories of E&P problems that can be solved with big data analytics, and (c) case studies demonstrating the value-added proposition for big data.

The one key idea I would like to offer as a takeaway is this: There is significant potential for data analytics to provide insights that can be translated into actionable information in E&P projects, but petroleum engineers and geoscientists need to have a fundamental understanding of data-driven modeling concepts, their applicability and limitations.

Biography

Dr. Srikanta Mishra is Institute Fellow and Chief Scientist (Energy) at Battelle Memorial Institute, the world's largest independent contract R&D organization, where he manages a geoscience-oriented technology portfolio related to computational modeling and data analytics for geological carbon storage, shale gas development and improved oil recovery projects. Dr. Mishra is the author of "Applied Statistical Modeling and Data Analytics for the Petroleum Geosciences" recently published by Elsevier, and has also taught multiple short courses on uncertainty quantification, statistical modeling and data analytics. He holds a PhD degree in Petroleum Engineering from Stanford University.

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Delta Section

Our Mission

To collect, disseminate, and exchange technical knowledge concerning the exploration, development and production of oil and gas resources and related technologies for the public benefit; and to provide opportunities for professionals to enhance their technical and professional competence.



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SPE-Delta Membership Report

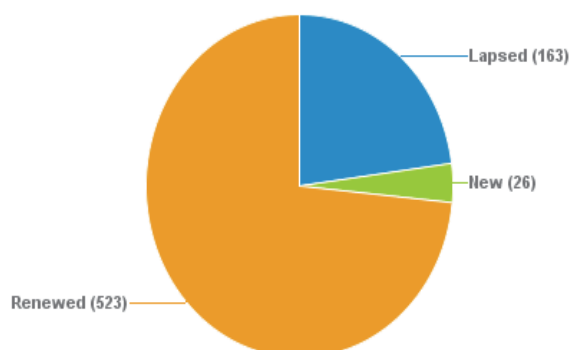
Submitted by Ryan Adams (Membership Chairperson)

As of October 2018

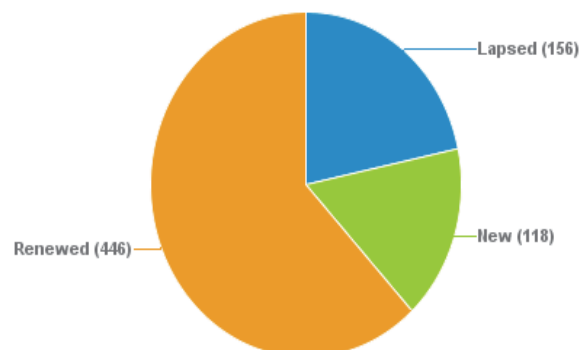


Total Full Members	712
New Members	26
Unpaid Members	163
Total Student Members	720

Professional Membership



Student Membership



Total Members by Year



CREDENTIALS

Build Your Professional Cred

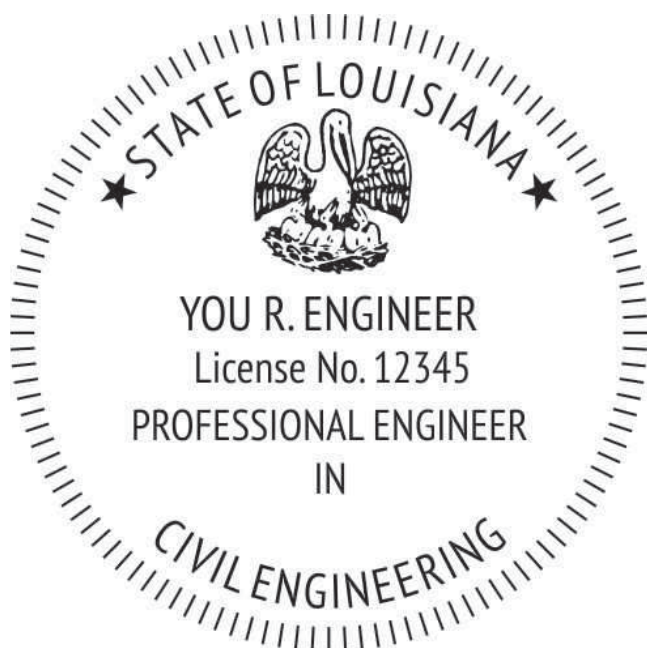
By: Nick Judice, PE, PMP

Credentials? Why do I need those? What if I already have a nice paying job with a fancy title?

As we all work to navigate the turbulence that is the reality of working in the oil and gas industry, we sometimes need a boost to get us noticed or an extra lifeline to hang on when times get tough. Credentials can provide both.

There is often a gap for those without direct oil and gas major experience if someone would like to work for them. Good questions arise during the screening process such as: What experience do you have? How can you help the company succeed? What makes you special or unique that they cannot get by promoting someone from within? Credentials can show your expertise and help back up your claims touted in your resume or cover letter. During the conversation, credentials can provide additional talking points and help you stand out from other candidates. Of course, you often have to use your connections to help get the opportunity to have that conversation. Remember, credentials aren't magic.

Similar questions pop up from smaller companies that need someone who can quickly adjust course, move quickly, and minimize red tape. Sometimes credentials can bring expertise to these companies through your knowledge gained and proven with your credential. Your credentials allow you to become the company's one-stop shop; a single hire that can wear many hats.



Hard Work

Like anything worth doing, great rewards don't come without sacrifice. For a few months, studying will take you away from hobbies, sleep, or hanging out with your family as much as you would like. Earning credentials often takes a hit to the ego too – most engineers find that they have to re-learn topics they haven't used since college, topics they've forgotten, and a handful of things they've never seen before. There is light at the end of the tunnel.

Is it worth it?

After your huge sigh of relief that you don't have to study anymore, you will have a great sense of accomplishment, new/regained knowledge, and a new business card with snazzy letters behind your name.

In some companies, credentials are as useful as advanced degrees, so a few months of self-study can save you a few years of coursework.

Many companies offer pay increases for credentials. Some are direct and come as soon as you earn the credential, while others pay off in the coming few years with job or responsibility changes.

In my journey, I've had several interviewers mention that because I have my PE license, it made me stand out in the pile of resumes they received and gave me the opportunity to interview. When I decided to move into Project Management, I earned my PMP (Project Management Professional) to help steer conversations and job opportunities toward my desired career path.

It's hard to know what will help guide you to your goals, but I can offer a bit of encouragement and recommend some soul searching to identify where it is you want to go. Once you've figured out your goal, do a little research to see what credentials may help you create opportunities along the road to your goal. Credentials have helped me in my career journey and can likely do the same for you.

Some options that may be helpful in our career field:

Petroleum Engineering Certification

<https://www.spe.org/training/certification.php>

Professional Engineer / Surveyor

<https://ncees.org/>

Project Management

<https://www.pmi.org/certifications/types/project-management-pmp>



SPE: ON THE HORIZON

OCTOBER

- Oct 26 LSU SPE Boys & Girls Club Volunteering Event • 3:30 pm
- Oct 30 SPE Technical Focus Meeting and Luncheon • 11:30 am - 1:00 pm
 Lunch 11:30 am • Presentation: 12:00 pm
 "Continuous Reservoir Monitoring with Intelligent Inflow Tracers"
 Speaker: Scott LaVoie, Business Development Manager, North America - RESMAN
 Holiday Inn Superdome • 330 Loyola Ave. • New Orleans, LA

NOVEMBER

- Nov 1 LSU SPE: Anadarko Career Building 101 & State of the Industry Presentation
 6:30 pm

DISTINGUISHED LECTURER MEETING & LUNCHEON

- Nov 15, 2018 SPE Delta Distinguished Lecturer Dr. Srikanta Mishra • 11:00 am - 12:30 PM
 "Big Data Analytics: What Can It Do for Petroleum Engineers and Geoscientists?"
 Northshore Live Telecast: Chevron Office • 100 Northpark Blvd • Covington
 Southshore Live Presentation: Holiday Inn Superdome • 330 Loyola Ave. • New Orleans, LA

DECEMBER

- Dec 15..... FIRST Lego Competition
 Jesuit High School • New Orleans, LA

FEBRUARY

- Feb 18-21..... 2019 GNOSEF
 Tulane University • New Orleans, LA

MARCH

- Mar 21-23..... 2019 Bayou Regional Robotics
 Pontchartrain C Center • Kenner, LA

DISTINGUISHED LECTURERS SCHEDULE

- Apr 15, 2019 SPE Delta Distinguished Lecturer Chris Hopper • 11:00 am
 "Resilient Projects are the Best Solution to an Uncertain World"
- Jun 10, 2019 SPE Delta Distinguished Lecturer Martin Rylance • 11:00 am
 "The 'Fracts' of Life (Common Failure Mechanisms Associated with Fracturing)"

Continuing Education Lunch and Learn Sessions

SPE Delta will offer a series of lunch and learn sessions to explain the practical sizing and selection of oil & gas production equipment. There is no intention to approach deep engineering design. Production equipment design has as much experience involved as hard science. Basic theory will be reviewed and some of the criteria that are routinely ignored will be considered. Short cuts and rules of thumb to allow an engineer to have a conceptual feel for what is needed before he dives into the "hard" engineering on a project will be shown. Some routine practices by the industry will be reviewed as to whether they are really sound engineering.

The whole program is to generate thinking. Disagreement will be welcome. Separation, treating, and dehydration will be covered. Electrostatic treating will be reviewed.

The sessions will be led by Allen Porter, who has 65 years of experience on the shelf from some of the first wells to the present depletion production. His career almost spans the life of the shelf. He is the retired vice president of CE Natco and the retired president of Allen Tank. His career began with Gulf Oil. He has production equipment and processing experience from all over the world and will expand on some of those systems. This is intended to be a fast moving, fun program with a basic background on design of facilities.

TECHNICAL FOCUS LUNCH MEETING

Continuous Reservoir Monitoring with Intelligent Inflow Tracers

RESMAN®
WIRELESS RESERVOIR SURVEILLANCE



Over 50 operators in 36 countries have used RESMAN's continuous reservoir monitoring technology to obtain multiple years of on-demand reservoir inflow information with no expensive wired sensors and no risky production logging intervention. In the Gulf of Mexico RESMAN has been utilized in many deepwater and subsea projects, including all current Lower Tertiary projects.

Applications:

- Zonal inflow quantification (fig. 1).
- Detection of water and gas breakthrough location(s).
- Inflow assurance monitoring (leak detection in packers, flow control valve monitoring, and b-annulus integrity monitoring).
- Detection of condensate banking and gas breakthrough.

RESMAN Technology Benefits:

- Uses intelligent tracer elements that are easily integrated into completion (Fig. 2).
- Provides multiple years of continuous monitoring.
- Low-cost with no intervention, no added rig time.
- Environmentally friendly with chemicals used in parts per trillion (PPT) concentrations.
- Risk-free & adaptable to various completion designs (with screens, slotted liners, cemented liners, sleeves, plug & perf).

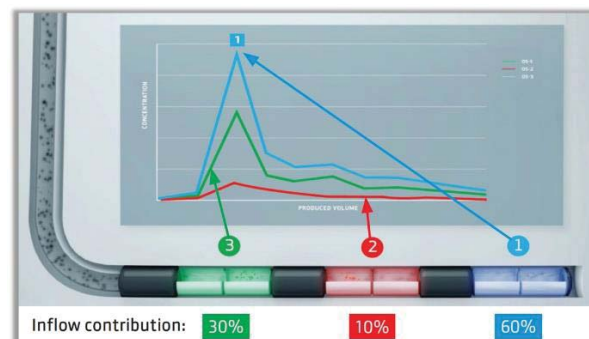


Fig. 1 RESMAN provides years of reservoir inflow information without intervention or expensive wired sensors



Fig. 2 RESMAN can be easily integrated into the completion components, eliminating design complexity and operational risk

OCTOBER 30, 2018 • 11:30 am - 1:00 pm

Continuous Reservoir Monitoring with Intelligent Inflow Tracers



The technical presentation will discuss what Intelligent tracers do, how they work and provide field examples of their application for multi-year monitoring of water breakthrough, zonal inflow contribution and completion integrity. Several case studies from the Gulf of Mexico will be shown as examples of how operators have used RESMAN data to make decisions and add value to their projects.

Presenter: Scott LaVoie, BDM North America – RESMAN



Scott LaVoie is RESMAN's Business Development Manager for North America and Unconventional Resources.

He started his career in the oil and gas industry over 20 years ago in Alaska with Schlumberger and stayed with the company for 17 years. He joined RESMAN in 2013.

During his career, Scott held positions in data management, consulting services, operations management, business development, and sales. He has a technical background in computer science, gas lift, fiber optic sensing, data modeling & analysis, and intelligent completions.

Scott holds a degree in Computer Science from the University of Alaska Anchorage.

About RESMAN

RESMAN was inceptioned in 2005 by Statoil Technology Invest to provide inflow tracer technology that did not exist in the market via any other tracer companies.

Since then, the company maintained exclusive focus on inflow tracer monitoring and installed thousands of its Intelligent Tracer® systems in hundreds of wells worldwide.

Track record summary:

- 57 clients in 36 countries.
- 530 wells = 4666 Intelligent Tracer systems.
- Max commingled flow rate sampled to date: 200,000 BFPD.
- Max pressure to date: 30,000 psi.
- Max temperature: 400°F (200°C).

RESMAN's track record and expertise were built by designing and managing the implementation of its Intelligent Tracers for the most complex and challenging well completions in the oil and gas industry.

We are committed to help you gain valuable understanding about your reservoir to ultimately improve the effectiveness of reservoir management decisions.

Find out more at www.resman.no

SPE-Delta and FIRST LEGO 2018



SAVE THE DATE.....December 15, 2018. Plan to attend this year's FIRST LEGO League Championship tournament which will be held at Jesuit High School. The theme of this year's challenge is INTO ORBIT.

Middle-school students, ages 9 to 14, will participate in challenges pertaining to living in and traveling through space.

Each Challenge has three parts: the **Robot Game**, the **Project**, and the **Core Values**. Teams of up to ten children, with at least two adult coaches, participate in the Challenge by programming an autonomous robot to score points on a themed playing field (Robot Game), developing a solution to a problem they have identified (Project), all guided by the *FIRST* Core Values. Throughout their experience, teams operate under the *FIRST* signature set of Core Values, celebrating discovery, teamwork, and Gracious Professionalism®.

FIRST (For Inspiration and Recognition of Science and Technology) is a 501 C 3 non-profit entity that serves to engage students in cutting edge STEM (Science, Technology, Engineering, and Mathematics) activities to improve the overall education of our children. FIRST LEGO league programs are now impacting well over 1700 students each year.



Please plan to attend and support these teams. Expose yourself and your children to this great event and opportunity. Better yet, *plan to Volunteer!* Volunteers are also needed as Judges, Judge Assistants, Scorekeepers, Crown control, Timekeepers, Referees, Pit Managers, Greeters, Floaters.....and many other positions. For more information please refer to: <http://www.firstlegoleague.org/challenge/>

VOLUNTEERS NEEDED

Fueling Victory in WWII: Production & Use of Oil in WWII

The National WWII Museum in New Orleans is a remarkable place. It contains snippets of oil's role in winning the war, but not much of that story.

Armies, navies, air forces consume vast quantities of resources. Oil - lots of it - was required to make the victory possible.

SPE Delta is launching a study to develop the story of fuel, oil in particular, in winning WWII.

We are looking for volunteers willing to dive-in and research this piece of

history to tell the story of how much was needed, where it came from, how it was found, produced, refined, conserved, transported, and fought over, how it affected military strategy and about the people who made it all happen.

We hope that eventually the story we develop will be presented in the National WWII Museum.

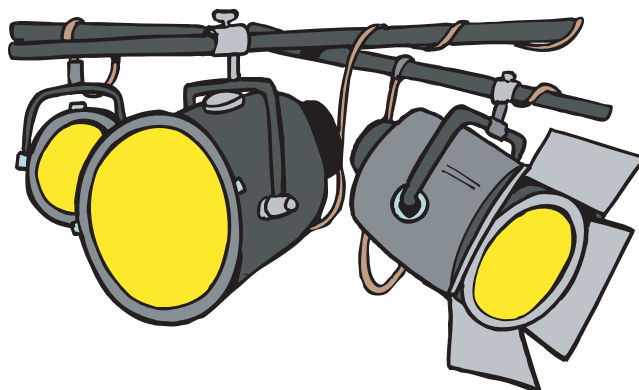
This is likely to be a multi-year effort. Our first goal will likely to be development of a short documentary video.



If you would like to be involved,
please contact **Daniel Durey**
at daniel.durey@shell.com



Delta Section



Spotlight on Young Professionals

Do you know a young professional who deserves to be put in the Spotlight? If so, suggest them (or yourself) to be featured in the “Spotlight on Young Professionals.” Help us identify worthy young professionals by submitting your story today for a chance to be featured in The Way Ahead™.

Learn more at <http://www.spe.org/members/yps.php>



Volunteering Looks Good on You.

Engage Support Contribute

Become a Mentor through SPE's eMentoring Program

eMentoring gives SPE members a way to contribute to the E&P industry by sharing industry insights and practical career advice with young professionals, or by helping university students with academic and career direction. Young professionals also have the unique opportunity to serve as mentors to students.

Join the program today by going to <http://www.spe.org/ementoring/>

Dues Waiver

SPE offers a dues waiver for renewing members who have lost their jobs due to the industry downturn and other circumstances. To qualify, submit a written request by either postal mail or email to service@spe.org.

Out of Work?

Check out the Members in Transition Toolkit at <http://www.spe.org/members/transition/>. Learn how to optimize your job search, develop your network, enhance your skills, and thrive in a downturn.