

Fourth Quarter Newsletter 2019

Featured Projects

Lime and Fly Ash



PENTA has recently been highly focused in the lime and fly ash industries. This has included design and construction management for the installation of two rotary kilns with preheaters by PENTA Engineering and the design-build project execution of two hydrating plants by PENTA Industrial. PEC Consulting, PENTA's consulting arm, has undertaken several studies for lime manufacturing in Mexico and Alaska analyzing distribution and supply chain networks for PENTA's customers. PEC Consulting has also participated in the commissioning of a lime plant in Peru and in the operations of another lime plant in Madagascar.



In the fly ash market, we have worked with Midwestern power plants designing rail and barge loading systems to handle and supply fly ash to consumers. PENTA Engineering has also worked on projects for systems that process ash from existing power plant ash ponds to meet the ASTM specifications for fly ash to be used in ready-mix concrete manufacturing. These projects have used our experience with material handling, crushing, screening, and conveying systems (mechanical and pneumatic).

Mining



In the mining market, we have worked on several copper mining projects in Arizona including an ore concentrate storage and blending facility that blends ore concentrate and conveys it to a smelter, a study for an acid rail loadout facility and detail electrical engineering as part of the installation of a new primary crusher. We were also recently awarded a detail engineering and technical field support project for the installation of a primary crusher at a gold mining operation in the Western US.

Complete Engineering of Grinding Unit – One Roller Press Circuit of 3,600 t per day – Dolvi, Maharashtra, India



PENTA India Technical Consultants Pvt. Ltd. was awarded the complete engineering and procurement assistance for the implementation of a new slag grinding unit at this cement manufacturing facility in Maharashtra, India.

The battery limits for this project started at the receipt of raw materials through to the packing and dispatch area, which consisted of wagons and a cement bagging and bulk terminal.

PENTA carried out a techno-economic feasibility study and performed the basic and detailed process, mechanical, civil / structural, and electrical & automation engineering during a 14-month project schedule.

Deliverables consisted of approximately 685 General Arrangement drawings, which included 380 civil & structural, 210 mechanical, 70 electrical & automation, and 25 processes.

The OEMs involved in the project for the supply and erection of equipment were: KHD for the roller press circuit; Beumer for packing and dispatch; Siemens for electrical & instrumentation, and many other suppliers for the balance of plant equipment.

The plant has been commissioned and started operations in March 2018. [Read more about PENTA Engineering's Projects.](#)

Visit Our Website

MENTORING PROGRAM

About one year ago, PENTA started a very diligent Mentoring Program for its younger employees. The idea behind this program is for the more senior staff to guide the younger employees in their career development. This is done not only on a technical basis, but also on other aspects of their development, relating past experiences on projects as well as work related events, discussing customers and market trends. We listen to our employees' ideas and ambitions and provide them with guidance to achieve their goals. As well as meeting periodically with Ryan, I invite other senior staff to join us for lunch to share their experiences. This is a very gratifying way of tutoring as well as learning the views and aspirations of younger staff.

Frank Benavides

Principal



"I find the PENTA Mentoring Program to be very beneficial and informative. Frank is my mentor and he has been doing industrial work for 30+ years. Under most circumstances, there is a chain of command that I would refer to and I would rarely go to Frank with questions about a project I'm working on. The mentoring program has given me the opportunity to use Frank's knowledge of the industrial field and use it in the projects that we are working on today. I have also been able to build rapport with him, so that now I feel much more comfortable seeking out his advice." ~ Ryan Haas

Employee Spotlight

Steven Fiske



I started with PENTA in May of 2004. My only other engineering experience after school had been working commercial and residential projects for a couple of years, so the industrial work was quite an adjustment for me. Fortunately, there were many experienced engineers from all disciplines to lean on and learn from. It taught me early on how critical collaboration between the different departments is. On every project it is one PENTA team, and each discipline is affected by the decisions and work of the others.

I've been with PENTA for 15 years now and the work is still as interesting as it was when I started. One of the most interesting aspects of working at PENTA is the diversity of industries, structures, and people you get to work with. I've had the opportunity to meet and work with people from all around the world. I have also visited

plants around the country as well as in South America and our office in India. Each new project I worked on introduced a new area of the plant, or a new plant location with its own codes and design requirements, or a new material being processed. So, every project has something new to learn – which keeps things fresh.

The advancements in technology have kept it interesting as well. When I started, all drawings were being done in AutoCAD, many times with field measurements done with a tape measure. I remember the first project I worked on in Revit in 2011. Now we are working in full 3D models that incorporate all disciplines, point clouds and linked-in models from vendors. Over the years, I have been encouraged and allowed to grow professionally. When I started as a junior engineer, I was helping the lead engineers with their projects. Since then I have earned my engineering license, taken on increasingly larger and more complicated tasks, and became one of the lead engineers on projects myself. For the last 3 years, I have worked as the Department Manager, where hopefully I can help others develop their careers.

Over the years, I have been encouraged and allowed to grow professionally. When I started as a junior engineer, I was helping the lead engineers with their projects. Since then I have earned my engineering license, taken on increasingly larger and more complicated tasks, and became one of the lead engineers on projects myself. For the last 3 years, I have worked as the Department Manager, where hopefully I can help others develop their careers.

Mohammed Dimah



I came to the United States from Iraq in 2014 knowing that getting established as an immigrant and starting a career from scratch was not going to be an easy task. I had the degrees that would help me get a job, but would I be able to work for a company where I could apply the knowledge that I had acquired so far and expand on it? Shortly after my arrival, the answer came in a job offer at PENTA Engineering. From the very beginning up until now, there hasn't been a day in which I haven't looked forward to being at work, anticipating what new challenges would be waiting for me.

I had a quiet and enlightening upbringing – both my parents professors at the University of Baghdad – needless to say very much into instilling good principles and motivating their children to pursue an education in a field they would very much enjoy the rest of their lives. It was my call and I chose Chemical Engineering. And to have a strong background in the world of business, I decided to get an MBA. Not knowing what lied ahead, I had chosen the path to a successful career. PENTA is a great place to work and grow. PENTA is focused on developing its employees. I've had the opportunity to travel internationally and have visited almost all US states on many projects for various industries.

I have my coworkers to thank for teaching me everything from conceptual studies to plant engineering and project management. People make the difference and working at PENTA is like being with family. The culture at PENTA is phenomenal; we all come from different worlds and yet are united and work towards a common goal. The way this is accomplished is amazing; true and real teamwork.

Interested in joining our team?

New Hires

Balsam Farid

Balsam is a Structural Engineer. She has many years' experience in analysis and design of various types of buildings with emphasis on industrial and mining structures. She has a B.Sc. Civil Engineering and M.A. Sc. Structural Engineering from the University of Basrah, Iraq.



Chengyi Ma



Chengyi is a Mechanical Engineer with 10 years of experience in maintenance, reliability, manufacturing, and process improvement/design. He is a Registered Professional Engineer in Missouri and has ASQ Six Sigma Green Belt Certification, American Society for Quality. He earned a B.S. in Mechanical Engineering from Shanghai University, and attained an M.S. in Mechanical Engineering from the University of Louisiana at Lafayette.

Chrystal Revis

Chrystal is an Electrical Engineer. She has a Bs. Sc. Degree in Electrical and Computer Engineering, Texas Southern University – Houston, TX.



Something you'd like to see in the next issue? Email us at busdev@penta.net

