

Applying the Fundamentals

PSRI Training



PSRI offers full-service support to our clients. Solutions alone are rarely enough. PSRI provides state-of-the-art training to support what has been done and to maintain the gains. Thus, we believe that training is an essential part of maintaining success. PSRI offers intensive fluidization seminars all over the world on fluidization concepts and design principles. However, this is only the start. PSRI continues to support our client's training long after the initial session with design manuals, reports, tutorials, webinars, webtools and unlimited access to future training sessions. Learn it now and know it later.



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PSRI Fluidization Seminar and Workshop

PSRI has its seminars all over the world. It is a four-day seminar directed towards engineers working with granular-fluid systems such as fluidized beds, circulating fluidized beds, cyclones and pneumatic conveying lines. It is taught by world-renowned experts in the field with over 150 years of combined experience using state-of-the-art teaching tools. The result is you leave the course knowing fluidization concepts and how to use those concepts for the design and operation of commercial fluidized systems. The course syllabus typically includes:

- Particle properties
- Fluidization regimes and transitions
- Hydrodynamics in fluidized beds with effects of temperature and pressure
- Gas and solid mixing
- Gas contacting and reactions
- Heat and mass transfer
- Grid design
- Sparger design
- Jet penetration length
- Entrainment and elutriation
- Transport disengagement height
- Cyclone design
- Cyclone efficiency and pressure drop
- Cyclone dipleg terminations
- Particle attrition
- Erosion
- Standpipes and diplegs
- Dilute and dense phase pneumatic conveying
- ROM and CFD Modeling

PSRI Upcoming PSRI Fluidization Seminars and Workshops

- Chicago, USA, September 17 - 20, 2018
- Melbourne, Australia, October 15 - 18, 2018
- Kuala Lumpur, Malaysia, October 22 - 25, 2018
- Houston, USA, January 8 - 11, 2019
- Heidelberg, Germany, 2Q2019
- Additional information can be found at psri.org/training/seminars



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For member companies, training is a continuous process. PSRI provides a wide range of tools so its members have what they need to solve their problem better, faster and at cost. As a PSRI member, you would have access to;

- Over 200 online research briefs
- Over 90 online research reports
- Over 30 online state-of-the-art reports
- Online design guides for fluidized bed hydrodynamics, grid design, entrainment, cyclones, pneumatic conveying, heat transfer and bulk solids flow
- Online tutorials on understanding particle size, density and shape, particle attrition, erosion, modeling, pressure balances, standpipes, diplegs, cyclones, hoppers and silos, interparticle forces, pneumatic conveying, and segregation
- Past and future webinars with past webinars on basic concepts of fluidization, standpipes, cyclones, diplegs, circulating fluidized beds, strippers, bed internals, pneumatic conveying, and hoppers.
- Videos and high-speed video on fluidization behavior in fluidized beds, cyclones, standpipes and risers capturing recently discovered phenomena such as gas bypassing, the secondary cyclone erosion mechanism, particle clustering, electrostatics, bubble hydrodynamics, and particle attrition
- PSRI webTools with calculations for fluidization properties, grid and sparger sizing, cyclone design and grade efficiency, entrainment rates with particle clustering correction and heat transfer
- PSRI Excel-based fluidized bed simulator tool
- PSRI bi-annual newsletter
- PSRI two-day annual technical meeting in June
- PSRI quarterly one-day technical meeting throughout the year
- Unlimited casual consulting (i.e., phone calls, emails, etc.)
- Eight hours free formal consulting with additional consulting hours at \$150 per hour plus expenses
- Available in-house seminars and workshops on a wide range of topics including all the material covered in the standard seminar and workshop.

Important PSRI Dates

- PSRI Technical Advisory Committee Meeting, Chicago, USA, June 25 - 27, 2018 (invitation only)
- PSRI Fluidization Seminar and Workshop, Chicago, USA, September 17 - 20, 2018
- PSRI Fluidization Operators Training Seminar, Chicago, USA, September 25 - 27, 2018
- Additional information can be found <https://psri.org>



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