Chemical engineering is a branch of engineering that applies physical sciences and life sciences. It essentially deals with the engineering of chemicals, energy and the processes that create and/or convert them. Modern chemical engineers are concerned with processes that convert raw materials or chemicals into more useful or valuable forms. They are also concerned with pioneering valuable materials and related techniques which are often essential to related fields such as nanotechnology, fuel cells and bioengineering. A unit operation is a physical step in an individual chemical engineering process. Unit operations (such as crystallization, filtration, drying and evaporation) are used to prepare reactants, purifying and separating its products, recycling unspent reactants, and controlling energy transfer in reactors. Chemical engineers “develop economic ways of using materials and energy”. Chemical engineers use chemistry and engineering to turn raw materials into usable products, such as medicine, petrochemicals and plastics on a large-scale, industrial setting.

The organizing committee is gearing up for an informative conference program including plenary lectures, symposia, workshops on a variety of topics, poster presentations and various programs for participants from all over the world. We invite you to join us at the Chemical Engineering-2016, where you will be sure to have a meaningful experience with scholars from around the world. All members of the Chemical Engineering-2016 organizing committee look forward to meeting you in Chicago, USA.

For more details please visit: [http://chemicalengineering.conferenceseries.com/](http://chemicalengineering.conferenceseries.com/)

**Importance & Scope:**

Chemical engineering has a number of applications in our day to day lives. Chemical engineering also has applications in production of electronics, clothing, paper and photographic equipment etc. The scope for individuals in the field of chemical engineering is bound to grow in time. This is mainly because of industrial growth as well as the related scarcity of the resources those are required. In future years, chemical engineers will be needed to develop synthetic replacement for those resources as well
as materials that are low in supply. In overall, it can be said that chemical engineers will be able to make very crucial contributions to the improvement in addition to the maintenance of the quality of our lives. Chemical Engineering techniques are used for the production of usable, high quality products such as fibres, fabrics, paints, medical drugs, biomaterials, gasoline, lubricants etc used in various industries such as textile, food, plastics, automotive, aerospace, petroleum, oil and gas, biomedical, biotechnology and pharmaceuticals, thereby increasing the scope of Chemical Engineering.

**Conference Highlights:**

- Advances in Chemical and Process Engineering
- Electrochemistry and Electrochemical Engineering
- Unit Operations and Separation Processes
- Petroleum Refining and Petrochemicals
- Applications of Chemical Technology
- Biochemical Engineering
- Chemical Polymer Technology
- Inorganic chemistry usage in chemical engineering
- Thermodynamics
- Biomolecular Engineering
- Environmental and Sustainable Chemical Engineering
- Crystallization
- Chemical Reaction Engineering
- Advances in Renewable Chemicals
- Chemical Industry and Market Analysis

**Why Chicago?**

Chicago is the third-most populous city in the United States. With over 2.7 million residents, it is the most populous city in the state of Illinois and the Midwestern United States, and the county seat of Cook County. The Chicago metropolitan area, often referred to as Chicago land, has nearly 10 million people and is the third-largest in the USA.

Chicago was incorporated as a city in 1837, near a portage between the Great Lakes and the Mississippi River watershed, and grew rapidly in the mid-nineteenth century. The
city is an international hub for finance, commerce, industry, technology, telecommunications, and transportation: O'Hare International Airport is the second-busiest airport in the world when measured by aircraft traffic; the region also has the largest number of U.S. highways and rail road freight. In 2012, Chicago was listed as an alpha global city by the Globalization and World Cities Research Network, and ranked seventh in the world in the 2014 Global Cities Index. Chicago has the third-largest gross metropolitan product in the United States—about $630.3 billion according to 2014-2016 estimates. The city has one of the world's largest and most diversified economies with no single industry employing more than 14% of the workforce.

**Why to attend??**

Chemical Engineering 2017 is an exciting opportunity to showcase your research works, the new technology, the new products of your company, and/or the service your industry may offer to a broad international audience. Conduct workshops, distribute information, meet with current and potential customers, make a splash with a new product line, and receive name recognition at this 3-day event. World-renowned speakers, the most recent techniques, tactics, and the newest updates in field of Chemical Engineering are hallmarks of this Chemical Engineering Conference.

**Target Audience:**

- Chemical Engineers
- Chemists
- Chemical Scientists
- Chemical engineering Students
- Chemical Industries
- Chemical engineering Associations and Societies
- Biochemical engineers
- Polymer engineers
- Chemical Companies

**Major Chemical Engineering Associations around the Globe:**

- European Federation of Chemical Engineering
- American Chemical Society (ACS)
Canadian Society for Chemical Engineering (CSChE)
Society of Chemical Engineers New Zealand
Argentinian Association for Chemical Engineers
National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE)
Indian Institute of Chemical Engineers (IIChe)
Society of Chemical Engineers
Thai Institute of Chemical Engineering and Applied Chemistry
Israel Institute of Chemical Engineers (IIChe)

Major Chemical Engineering Associations in USA:

American Chemical Society
American Institute of Chemical Engineers (AIChE)
Association of Energy Engineers (AEE)
Mexican Institute of Chemical Engineers (IMIQ)
Argentinian Association for Chemical Engineers
Brazilian Association of Chemical Engineering
Colombian Association of Chemical Engineering
Association of Chemical Engineers of Uruguay

Statistical Analysis of Chemical Engineering Associations
Figure 1: Chemical Engineering Associations

Top Universities in USA:

Massachusetts Institute of Technology (MIT)
University of California, Berkeley (UCB)
Stanford University
University of Cambridge
National University of Singapore (NUS)
Imperial College London
California Institute of Technology
University of Oxford

Statistical Analysis of Chemical Engineering Universities:

Figure 2: Chemical Engineering Universities
Statistical Analysis of Companies Associated with Chemical Engineering:

**Figure 3:** Companies Associated with Chemical Engineering

Glance at Market of Chemical Engineering:

In the U.S. there are 170 major chemical companies. They operate internationally with more than 2,800 facilities outside the U.S. and 1,700 foreign subsidiaries or affiliates operating. The U.S. chemical output is $750 billion a year. The U.S. industry records large trade surpluses and employs more than a million people in the United States alone. The chemical industry is also the second largest consumer of energy in manufacturing and spends over $5 billion annually on pollution abatement. In Europe the chemical, plastics and rubber sectors are among the largest industrial sectors.[citation needed] Together they generate about 3.2 million jobs in more than 60,000 companies. Since 2000 the chemical sector alone has represented 2/3 of the entire manufacturing trade surplus of the EU.

The chemical industry has shown rapid growth for more than fifty years. The fastest-growing areas have involved the manufacture of synthetic organic polymers used as plastics, fibres and elastomers. Historically and presently the chemical industry has
been concentrated in three areas of the world, Western Europe, North America and Japan (the Triad). The European Community remains the largest producer area followed by the US and Japan.

**Market Growth of Chemical Industries:**

Statistics which shows growth in importance of Chemical Industries

*Figure 4: Chemical Industries Market Growth Forecast*