



Process and Product Design

Post-MSc programme



Post-Master's Program in Process and Product Design (PPD)

A flying start to your career in industry

Have you ever thought about working as a technological designer in industry after completing your Master's? Does making a flying start to a career in this direction appeal to you? The process industry is changing constantly, and has a great need for design talent. Changes in customer demands, economic factors, environmental aspects and legislation, as well as the availability of new technologies, means there is a

Technological designers have the rewarding task of translating new ideas and plans into concrete applications

constant need for new design solutions. Technological designers have the rewarding task of translating new ideas and plans into process design. They also translate knowledge-intensive product developments into concrete applications. After completing the Post-Master's Process and Product Design program, you'll be able to do this in a unique way in which you integrate process- and product-related disciplines to the maximum possible extent.

PPD: learning how to apply theory

Chemical Masters have a lot of theoretical knowledge. But putting theory into practice to solve real industrial problems is a different matter. Most Chemical Masters find this very difficult. It's true that translating knowledge into practical, operational tools is no easy task. It takes time, training and experience. The multidisciplinary PPD program focuses specifically on these three aspects in training you as a creative technological designer. After this two-year program, you'll be able to make a 'flying start', whether in a manufacturing company or with a contractor. At least, that's what most of our graduates do.

Fast track to a higher level

During the PPD program you will be exposed to, and actively involved in applying, technologies to an extent that would never be possible if you were only working in industry. To gain the same experience would take, if possible at all, many more years in industry. The PPD program is unique: dedicated courses, industrial assignments, industrial lecturers and management team members who themselves are active in the process industry. As a Trainee Technological Designer you will receive a salary of around € 1650 gross per month. After successfully completing our program, you will be granted the degree of 'Professional Doctorate in Engineering' (PDEng).



Presentation of the
250th PPD-diploma



The knowledge and experience gained in your PPD program open the way to more challenging jobs

First year at university: courses and assignments

During the first year you'll be learning new technologies and broadening and deepening your existing knowledge. You will mainly be involved in applying technologies by working on industrial assignments: the same kind of real-life projects that our dedicated lecturers from industry work on themselves. Most of our lecturers have several decades of worldwide design experience with international chemical or food companies.

We use a group assignment format because people in industry also work in teams. This teamwork is supported by non-technical courses and professional development.

Second year in industry: design project

You'll spend the second year in industry working on a challenging and innovative technological design project – a real problem that needs to be solved. This project integrates a number of (sub-)disciplines. You'll be supervised by designers from industry as well as by university staff. So you're supported by scientific knowledge, practical design experience and project management expertise.

You're often working on group assignments, because being able to work well in a multidisciplinary team is vital in your future career

Application

You're eligible to be selected for the program if you've graduated from a Master's program in Chemical Engineering, Applied Physics or Mechanical Engineering from one of the Dutch universities of technology. If you've gained a university diploma in another country, a background in chemical engineering is expected. All courses in the program are taught in English.

The multidisciplinary Process and Product Design program is a joint responsibility of the Chemical Engineering and Chemistry, Applied Physics and Mechanical Engineering departments at Eindhoven University of Technology.



Cornald van Strien

Team leader process technology expertise group at AkzoNobel, gained his PPD diploma in 1991 and now he has assignments for PPD students



"You can write a lot of scientific papers, but at the end of the day you have to translate the answers into practice"

"After my Master's in Chemical Engineering, I decided to do the Post-Master's PPD Designer's program to be better prepared for the employment market. During that two-year period I saw how some of the things I had learned during my Master's all became clear and came together. In the second year of the PPD program I started working on a project for DSM into emulsion polymerization processes of vinyl acetate. My project focused on understanding the reaction mechanism, and the question of whether it was possible to develop a continuous process with a consistent product quality. This proved to be possible by using a pulsed packed column. My industrial supervisor gave me useful feedback, and I also received intensive support from the university."

"During my PPD program I learned how to reach an answer that would be useful to the business. You can write a lot of scientific papers, but at the end of the day you have to translate the answers into practice. In my present position I supervised two PPD students during a project. Just as I did in my program, they're learning how to work towards sound solutions that can be applied in practice. I've found that to be a very valuable skill in my career."

Angela Aristizabal
Recently completed
her PPD program



“The support you get from the university and from the company means you learn a lot very quickly”

“I decided to continue studying after gaining my Master’s in Chemical Engineering at the National University of Colombia. I wanted to do something practical, that would immediately help me in my work. The Process and Product Design program turned out to be exactly what I was looking for. At the start of the first year the knowledge from your Master’s is brought up-to-date, after which you really get to work on applying that knowledge in practice. Also you get intensive supervision from lecturers and professors from the university. They encourage you to look at things from different angles.”

“In the second year I was given a challenging design assignment at the PVC plant of the Tessenderlo Group in Geleen. Productivity needed to be increased. By investigating all sections of the plant in relation to each other I was able to make a design that greatly increased the production capacity. I’m proud that the company has already put some of my recommendations into practice.”

“The support you get from the university and from the company means you learn a lot very quickly. I’m now much more ready to start working than straight after my Master’s. Companies are aware of that, which is why I had a lot of job options after completing my PPD program.”

Margreet van Brakel
Plant manager at
the Pickwick factory,
regularly has assignments
for second-year students

“The results of PPD students are very useful, and I’m happy with the collaboration with the university”

“For some time now I’ve been plant manager at the Pickwick factory in Joure. In my last position as technology manager at Coffee Treatment and Supply (CT&S), I did four projects with trainee PPD designers.” “The products made by CT&S in Joure include Moccona instant coffee and Cafitesse liquid coffee concentrate. The production of these products is technologically complex. In fact there are always parts of the production process that can be optimized. If we need specialized technological designers for that and have no capacity available ourselves, I use a trainee PPD designer.”

“We had a number of interesting projects, such as optimizing a plant by building a model, so that we didn’t have to do all the tests in the factory. One of the students who completed his project at CT&S two years ago started work there a few months ago. That’s a good sign!”

“In general the results are very useful, and I’m happy to collaborate with the university. We have good contacts with the university supervisors, and we also learn a lot ourselves. So the four projects we did with PPD students proved to be a good investment.”



Is PPD the right program for me? What does the program look like? How can I apply for a place on the program? Will I be admitted with my prior education?

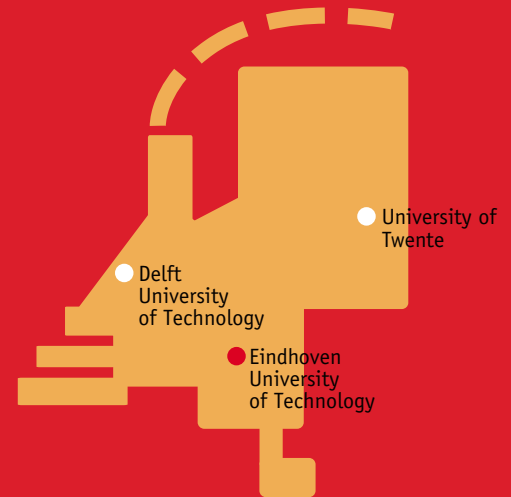
For the answers to these and many more questions, visit: www.processproductdesign.nl

Or contact us directly: info.ppd@tue.nl

Eindhoven

The Eindhoven region located in the southeast of the Netherlands is internationally recognized as a center for advanced technology and is characterized by knowledge and creativity. Eindhoven holds a strategic position as one of Western Europe's leading technology centers. Many global companies have established research, development and production facilities near Eindhoven.

Eindhoven is a modern city with extensive cultural and sports facilities, good restaurants and lots of pubs. But it also has much to offer for people with a technological focus. Eindhoven can be reached easily by public transport, has its own international airport and has an excellent train connection direct into the departure hall of Amsterdam Schiphol Airport. You can find more information about Eindhoven at www.eindhoven.eu



The 3TU.School for Technological Design, Stan Ackermans Institute offers eleven two-year postgraduate technological designer programs. The institute is a joint initiative of the three universities of technology in the Netherlands: Delft University of Technology, Eindhoven University of Technology and University of Twente.

sai@3tu.nl

www.3tu.nl/sai