



Knowledge for a better world

Department of
Chemical Engineering

75-year Jubilee Seminar



Agenda Day 1

09:20 - 09:45	Introduction and Welcome by Jens-Petter Andreassen, Head of Department at IKP
09:45 - 10:15	Presentation - Eva Sørensen, Head of Department, UCL Department of Chemical Engineering
10:15 - 10:45	Coffee
10:45 - 11:45	Presentations - Håvard Moe, Chair of the Board for Prosess21 and Senior Vice President Research, Technology and Projects at Elkem - Anne-Mette Hilmen, Deputy Director General for the Section for Industrial Affairs in the Climate, Industry and Technology Department at the Norwegian Ministry of Energy
12:00 - 13:00	Lunch at Una Pizzeria Solsiden
13:15 - 14:45	Presentations - Eli Aamot, Executive Vice President at SINTEF Industry - Erik Sauar, CEO at Cenate and Chair of the Board for Zero - Eivind Berstad, Senior Advisor CCS at Bellona
14:45 - 15:15	Coffee
15:15 - 15:50	Panel Discussion:«What chemical engineering knowledge and skills are essential to drive the green transition forward?»
15:50 - 16:00	Closing remarks by Jens-Petter Andreassen, Head of Department at IKP



IKP 75 years – but how old are we really???

Chemical engineering at NTH started even before 1949

1915: Hans Heinrich Lenschow:

Undersøkelser over fremstilling av svøvl av tynde svoveldioxyholdige gaser (røstgaser) ved reduktion.

1915: Fredrik W. Holst

Undersøkelse sulfatcellolusens og svartlutens kjemiske sammensætning

1915 F. Bonnevie Svendsen

Kemisk undersøkelse av sildolje



A century of significant contributions to Norwegian industrial development:

From 1949-2024:

~ 450 PhDs

~ 3000 MSc

NTNU's COVID-19 project

NRK

Nyheter Sport Kultur Humor Distrikt Mer ▾

NTNU-metode er avgjørende: Nå kan så å si alle koronatestes

Etter seks uker i krisetilstand, er vi desperate etter å komme tilbake til normal hverdag. Og nå er det mulig: Vi skal teste mange – og isolere få.



✉ Frida J. Krüger
Journalist

✉ Kiretti Kringstad
Journalist

✉ Anders Warner Øfsti
Journalist

Publisert 24. apr. 2020 kl. 19:00
Oppdatert 24. apr. 2020 kl. 20:54

MANGE FLERE SKÅL TESTES: Når vi sammenligner med resten av verden, er Norge blant landene som har testet flest. Men nå blir det enda mer testing, takket være en ny NTNU-metode. Postdoktor Sulalit Bandyopadhyay ved NTNU er blant dem som står bak.

FOTO: BENT LINDSETMO / NRK

Det er endelig klart at vi har nok utstyr og kapasitet på laboratoriene i Norge til å teste fem prosent av befolkningen hver uke.

Norwegian SciTech News
Research News from NTNU and SINTEF

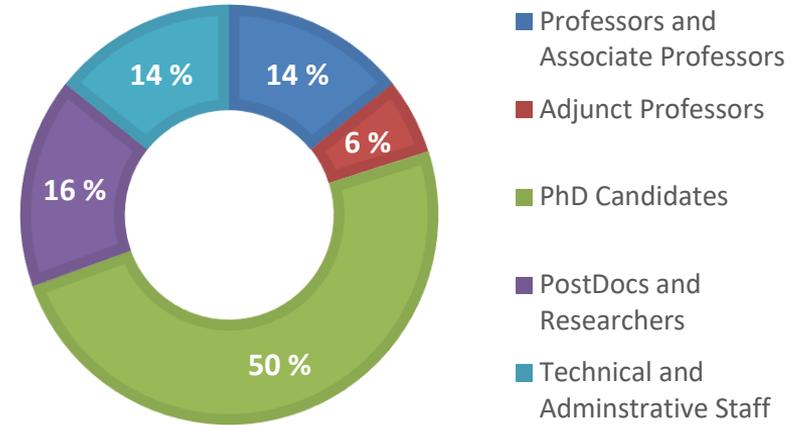
Newsletter Podcasts Archive 🔍 ☰ MORE



Gearing up to produce as many nanoparticles as possible for the COVID-19 test. The production operators for the team are Zeshan Ali, Regina Lopez Fyllingsnes, Ahmad Bin Ashar and José Paulino Peris Sastre (missing). Photo: NTNU

From thousands of tiny magnetic balls to 150,000 COVID-19 tests per week

130 - 150 employees from all over the world



Refurbishment of K5



K5, before K4 was built



IKP in the heart of NTNU's new campus

Education

5-years
master

MSc in Chemical
Engineering and
Biotechnology
(MTKJ)
- specialization
from 3rd year

2-years
master

MSc in
Sustainable
Chemical and
Biochemical
Engineering
(MSCHEMBI)

The department also teaches courses in the bachelor programs in Chemistry, Biotechnology and Material Sciences and a master program in Nano Technology



Photo: Per Henning

Our Research Groups



The Department of Chemical Engineering offers a wide variety of research.

Our strength lies in high international expertise, both in experiential and computational knowledge.



Catalysis



Colloid and
Polymer Chemistry
(Ugelstad Laboratory)



Environmental Engineering
and Reactor Technology



Process Systems
Engineering

Department of Chemical Engineering

- A national premise provider for the development of energy-efficient and sustainable process technology



CO₂-CAPTURE



- Solvent-based absorption
- Membranes
- Adsorption



LOW-CARBON HYDROGEN AND AMMONIA



- Blue and green hydrogen and ammonia production



CIRCULAR CHEMICAL ENGINEERING



- Recirculation of batteries and recovery of materials
- Conversion of plastics and waste
- Water treatment



BIOBASED PROCESS INDUSTRY



- Industrial biotechnology
- Bio-fuel production
- Bio-reactors



MEDICINE AND FOOD



- Nanomedicine
- System biology
- RAS systems
- Fertilizers



DIGITALIZATION AND OPTIMIZATION



- Energy efficiency
- Process optimization
- Digital twins and machine learning

Top-notch Department

Forskningsrådet

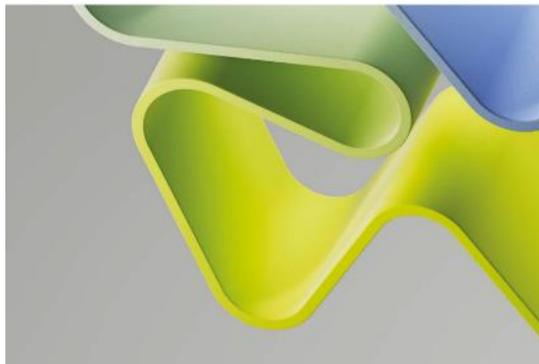
Evaluation of Natural Sciences 2022-2024

Evaluation report

Department of Chemical Engineering

Norwegian University of Science and Technology -
Faculty of Science

January 2024



Overall, the evaluation of the unit is very positive, and the administrative unit is well on track in terms of strategy, resources, and research organisation. Also, the quality and integrity of research activities are top-notch.

5. Relevance to society

Four presented impact cases have strong societal impact and are of high quality. The societal impact relates to the environment, health energy, and climate and align well with the Long-term plan presented by NTNU at the faculty level and the UN SDGs. The administrative unit performs research that is highly relevant for sustainable industry, as very well illustrated by some impact cases.

Read the report:

