

# The Role of Engineers in Sustainable Developments

## APS1018 – History and Philosophy of Engineers

### EXECUTIVE SUMMARY

In today's modern world, engineers from across all disciplines are called upon to design and manage complex systems, or simple systems to meet a complex set of demands. With the evolution of sustainable development, engineering principles have been redefined. This new principle has taken root into each engineering discipline skill set and educational program. This report focuses on the sustainable development in different engineering fields. It reflects the lives of the engineers who are trying to make the planet a better place to live by reducing waste, curbing greenhouse gas emission, saving fossil fuels and limit environmental impact. In this report, we examined the concepts of sustainable development through summaries of projects, products and actions from across engineering disciplines such as civil, chemical, materials and electrical engineering. Engineering is considered a single field from a layman's perspective however when we come closer and have a look we can see that different disciplines of the engineering field are contributing so differently and uniquely for sustainable development. This report demonstrates the crucial connections between sustainability, sustainable development and engineering. It also analyzes the vital role of engineers and engineering in delivering and managing sustainable developments by comparing past case studies. This report not only talks about the past and present efforts that engineers made for sustainable development in engineering fields, but also gives recommendations and actions that could be taken in the future to make a difference to the world. Engineers cannot stop here as they need to make improvements in sustainable development to make this planet safer and a healthier place for the future generations.