In this brash and audacious debunking of the myths and manipulation that brought the world to oil addiction, alt fuel expert Marc J. Rauch brilliantly lays out how ethanol can change the planet for the better—and along the way helps us navigate the noise of petroleum advocates. The Ethanol Papers is a rough-and-tumble, no holds-barred crystallization of the ethanol vs. gasoline conflict. Written in plain jargon, non-scientists, non-academics, and politicians alike will find it compelling. Yet this is no “Idiots Guide to Biofuels” or “Alt Fuels for Dummies.” Rather, The Ethanol Papers is the most in-depth and complete explanation of the ethanol-oil problem now available, targeted for smart people who demand facts.

Research Paper (postgraduate) from the year 2020 in the subject Engineering - Mechanical Engineering, grade: A, language: English, abstract: This project is a development of an experimental integration of a compressor in order to power a bicycle to reduce human effort. The author utilized pressurized air without any need of human energy. This product might be especially useful for handicapped people. The design proposes and successfully implements the use of a reciprocating actuator which is actuated by pressurized air that provides reciprocating motion, which is further converted into rotational movements towards the rear wheel with the help of a sprocket chain assembly. The concept reduces the air pollution to large extent as its exhaust is nothing but air.

This book provides an accessible overview of the ways that key areas of technology have impacted global ecosystems and natural communities. It offers a new way of thinking about the overall origins of environmental problems. Combining approaches drawn from environmental biology and the history of science and technology, it describes the motivations behind many technical advances and the settings in which they occurred, before tracing their ultimate environmental impacts. Four broad areas of human activity are described: over-
harvesting of natural resources using the examples of hunting, fishing and freshwater use; farming, population, land use, and migration; discovery, synthesis and use of manufactured chemicals; and development of sources of artificial energy and the widespread pollution caused by power generation and energy use. These innovations have been driven by various forces, but in most cases new technologies have emerged out of fascinating, psychologically rich, human experiences. This book provides an introduction to these complex developments and will be essential reading for students of science, technology and society, environmental history, and the history of science and technology.

Excerpt from Heat and Heat-Engines: A Study of the Principles Which Underlie the Mechanical Engineering of a Power Plant The d'arcy Formula for Compressed Air Compressed Air-engine with Complete Expansion Compressed-air Engine at Full Pressure, without cut-oh' Compressed-air Engine with Incomplete Expansion a. Compressed-air Engine with Isothermal Expansion Volume of the Cylinder of a Compressed-air Engine. Compound Compressed-air Engine. Combined Efficiency of Compressor and Air-engine Heat Range in the Air-engine Cylinder. About the Publisher Forgotten Books publishes hundreds of thousands of rare and classic books. Find more at www.forgottenbooks.com This book is a reproduction of an important historical work. Forgotten Books uses state-of-the-art technology to digitally reconstruct the work, preserving the original format whilst repairing imperfections present in the aged copy. In rare cases, an imperfection in the original, such as a blemish or missing page, may be replicated in our edition. We do, however, repair the vast majority of imperfections successfully; any imperfections that remain are intentionally left to preserve the state of such historical works.

The symposium will focus on electric aircraft technology across three programmatic tracks (1) electric power enabled aircraft configurations and system requirements, (2) enabling technologies for electric aircraft propulsion, and (3) electric aircraft system integration and controls.

With Profiting from Clean Energy, respected investment analyst Richard Asplund provides an in-depth explanation of the technology and industry structure behind various sectors of this field and in the process identifies more than 150 stocks related to clean energy. Along the way, Asplund discusses exactly what it takes to effectively invest in clean energy—whether it be through buying individual stocks, investing in green exchange-traded funds or mutual funds, or trading the biofuel and carbon credit markets.

This eagerly awaited second edition of Heinz Heisler's Advanced Vehicle Technology is a comprehensive and thorough description of vehicle bodies and components. The second edition has been rigorously updated to provide additional material on subjects such as antilock braking, vehicle aerodynamics, tire tread design advances, electronically controlled anti-vibration engine mountings and transport refrigeration. Around 100 new diagrams have been included to complement the text. Advanced Vehicle Technology 2nd edition's depth of coverage, detailed illustrations and fluent and precise style are the outstanding features in this high quality student text. More quality artwork has been added to enhance and add value to the explanation given in the text 16 key topics have been updated to bring this 2nd edition in line with current technology Fully international in scope, reflecting the nature of contemporary vehicle engineering.

This book analyzes how transport influences the ecology of various regions. Integrating perspectives and approaches from around the globe, it examines the use of different types of engines and fuels, and assesses the impact of vehicle design on the environment. The book also addresses the effect of the transport situation in agglomerations on their environmental safety. Various types of environmental impacts are considered, from traditional emissions to noise and vibration. Presenting scientific advances from 7 European countries, the book appeals to
Direct injection enables precise control of the fuel/air mixture so that engines can be tuned for improved power and fuel economy, but ongoing research challenges remain in improving the technology for commercial applications. As fuel prices escalate DI engines are expected to gain in popularity for automotive applications. This important book, in two volumes, reviews the science and technology of different types of DI combustion engines and their fuels. Volume 1 deals with direct injection gasoline and CNG engines, including history and essential principles, approaches to improved fuel economy, design, optimisation, optical techniques and their applications. Reviews key technologies for enhancing direct injection (DI) gasoline engines Examines approaches to improved fuel economy and lower emissions Discusses DI compressed natural gas (CNG) engines and biofuels

This chapter presents the possibility of use of the pneumatic piston engine with two-stroke cycle or four stroke-cycle of the work as an alternative driving source or additional power for the battery regeneration in the electric vehicles. Additionally, such engine can work together with combustion engine as a drive unit in a road vehicle. During city driving, such engine is driven by compressed air. The energy for the engine work is taken from the energy of the air stored at high pressure (about 30 MPa) in bottles or tanks. The chapter presents the thermodynamic theory included in the mathematical model of the engine based on thermodynamic processes (mass and energy balance). On such considerations, the chapter shows the results obtained from specially written computer program for the determination of the most important factors. The results of the calculations are included in the graphs showing the influence of the control parameters (air pressure, injection timing and rotational speed) on the engine working parameters. Certain chapters concern to a hybrid combustion system with an air injection only for a compression ignition engine in order to achieve higher indicated mean pressure and lower fuel consumption.

"Freeman Dyson has designed nuclear reactors and bomb-powered spacecraft; he has studied the origins of life and the possibilities for the long-term future; he showed quantum mechanics to be consistent with electrodynamics and started cosmological eschatology; he has won international recognition for his work in science and for his work in reconciling science to religion; he has advised generals and congressional committees. An STS (Science, Technology, Society) curriculum or discussion group that engages topics such as nuclear policies, genetic technologies, environmental sustainability, the role of religion in a scientific society, and a hard look towards the future, would count itself privileged to include Professor Dyson as a class participant and mentor. In this book, STS topics are not discussed as objectified abstractions, but through personal stories. The reader is invited to observe Dyson's influence on a generation of young people as they wrestle with issues of science, technology, society, life in general and our place in the universe. The book is filled with personal anecdotes, student questions and responses, honest doubts and passions"

This is a reproduction of a book published before 1923. This book may have occasional imperfections such as missing or blurred pages, poor pictures, errant marks, etc. that were either part of the original artifact, or were introduced by the scanning process. We believe this work is culturally important, and despite the imperfections, have elected to bring it back into print as part of our continuing commitment to the preservation of printed works worldwide. We appreciate your understanding of the imperfections in the preservation process, and hope you enjoy this valuable book. ++++ The below data was compiled from various identification fields in the bibliographic record of this title. This data is provided as an additional tool in helping to ensure edition identification: ++++ Gas-engine Design: With An Introduction On Compressed Air
The primary human activities that release carbon dioxide (CO2) into the atmosphere are the combustion of fossil fuels (coal, natural gas, and oil) to generate electricity, the provision of energy for transportation, and as a consequence of some industrial processes. Although aviation CO2 emissions only make up approximately 2.0 to 2.5 percent of total global annual CO2 emissions, research to reduce CO2 emissions is urgent because (1) such reductions may be legislated even as commercial air travel grows, (2) because it takes new technology a long time to propagate into and through the aviation fleet, and (3) because of the ongoing impact of global CO2 emissions. Commercial Aircraft Propulsion and Energy Systems Research develops a national research agenda for reducing CO2 emissions from commercial aviation. This report focuses on propulsion and energy technologies for reducing carbon emissions from large, commercial aircraft—single-aisle and twin-aisle aircraft that carry 100 or more passengers—because such aircraft account for more than 90 percent of global emissions from commercial aircraft. Moreover, while smaller aircraft also emit CO2, they make only a minor contribution to global emissions, and many technologies that reduce CO2 emissions for large aircraft also apply to smaller aircraft. As commercial aviation continues to grow in terms of revenue-passenger miles and cargo ton miles, CO2 emissions are expected to increase. To reduce the contribution of aviation to climate change, it is essential to improve the effectiveness of ongoing efforts to reduce emissions and initiate research into new approaches.

' Freeman Dyson has designed nuclear reactors and bomb-powered spacecraft; he has studied the origins of life and the possibilities for the long-term future; he showed quantum mechanics to be consistent with electrodynamics and started cosmological eschatology; he has won international recognition for his work in science and for his work in reconciling science to religion; he has advised generals and congressional committees. An STS (Science, Technology, Society) curriculum or discussion group that engages topics such as nuclear policies, genetic technologies, environmental sustainability, the role of religion in a scientific society, and a hard look towards the future, would count itself privileged to include Professor Dyson as a class participant and mentor. In this book, STS topics are not discussed as objectified abstractions, but through personal stories. The reader is invited to observe Dyson's influence on a generation of young people as they wrestle with issues of science, technology, society, life in general and our place in the universe. The book is filled with personal anecdotes, student questions and responses, honest doubts and passions. Contents: Walking with Grandfather Living in the Questions A Hexagonal Mountain Martha and Mary Engines With Souls Steered From Afar The Swamp Angel Rapid Rupture Arsenals of Folly To Touch the Face of the Stars Silence The Chainsaw and the White Oak Why Should I Care? Playing God Bonds of Kinship Two Windows Doubt and Faith Dreams of Earth and Sky Family
First Readership: Students and academicians who are interested in issues related to science, technology and society. Key Features: Removes objective detachment and makes STS issues personal through story-telling: Science, technology and society issues are not merely objects of study; they are experiences, they are choices to be lived. Student real-time responses to Professor Dyson’s insights bring the correspondence to life.

Includes honest questions that are more important than snappy answers: Few STS issues have black-and-white answers; they are, rather, about understanding the questions. For example, do we own our technology, or does our technology own us? Shows all things are connected: Practically every STS topic, it seems, reduces to values and ethics. STS issues are ultimately about relationships between us and nature, our machines, other species, other people — and ourselves. STS issues are too important to be left to scientists and technologists.

Keywords: Freeman J Dyson; Disturbing the Universe; Science Technology and Society; Bronowki, Jacob; Astronomical Habitat; Automation; Blake, William; Bomber Command; Car Culture; Chacón, Efrain; Climate Change; Cloning; Cold War; Cosmic Unity; Cosmology; Deforestation; Doubt and Faith; Dickens, Charles; Dyson, Alice; Dyson, Freeman J; Dyson, George; Dyson, Mildred; Einstein, Albert; Evolution; Fundamentalism; Future; Genetic Technologies; Greenhouse Effect; Homogenization of Society; Hydrogen Bomb; Environmental Sustainability; Exponential Growth; Environmental Sustainability; Hubbert’s Peak; Kaufmann, Walter; Manhattan Project; Marshall, Joseph III; Masters, Edgar Lee; Mutual Assured Destruction; Native Americans; Nuclear Weapons; Oil Consumption; Pirsig, Robert; Population; Project Orion; Quetzal Education Research Center; Reverence For Life; Schweitzer, Albert; Science And Religion; Silence; Six Faces of Science; Space Exploration; Standing Bear, Luther; Stem Cells; Strategic Air Command; Thoreau, Henry David; Turkle, Sherry; Urban Sprawl; White Oak Model'

Based on the study of energy storage this book comprehensively covers the various types of secondary storage systems (storing energy until it is needed), and discusses the multidisciplinary problem of choice of their types and parameters.

This thesis deals with development of compressed air powered engine system based on Subaru EA71 model. The objective of this thesis is to make a reverse engineering and design of the engine model, and make the computational analysis of the compressed air powered engine working model by using GT-Power. The thesis describes the compressed air technology that addresses the problems of exhaust gas pollution from vehicles, as well as utilization of fossil fuel. The development of the compressed air powered engine model starts with dismantling the original engine, cleaning the engine with petrol, and drawing all the components into Solidworks. Then develop the engine into two working stages that working with gasoline for four cylinders in the first stage and working with compressed air for two cylinders in the second stage. In this thesis, the research focuses on the second stage. Some components such as cylinder heads and cam profile are modified based on the new design. After this, a simulation by GT-Power is run, and computational analysis the performance of new compressed air powered engine. The results indicated the engine performance predictions and key cylinder predictions. The project achieves the objective of reducing the emission of carbon dioxide. However the new model lacks the power output so that continuous research is needed to fully prove the viability of the technology of the compressed air powered engine.

Automobile or Automotive Engineering has gained recognition and importance ever since motor vehicles capable for transporting passengers has been in vogue. Now due to the rapid growth of auto component manufacturers and automobile industries, there is a great demand for Automobile Engineers. Automobile Engineering alias Automotive Engineering or Vehicle Engineering is one of the most challenging careers in the field of engineering with a wide scope. This branch deals with the designing, developing, manufacturing, testing and repairing and servicing automobiles such as cars, trucks, motorcycles, scooters etc & the related sub Engineering systems. For the perfect blend of manufacturing and designing automobiles, Automobile Engineering uses the features of different elements of Engineering such as mechanical,
electrical, electronic, software and safety engineering. To become a proficient automobile engineer, specialized training is essential and it is a profession, which requires a lot of hard work, dedication, determination and commitment. The major task of an Automobile Engineer is the designing, developing, manufacturing and testing of vehicles from the concept stage to the production stage. The automotive industry is one of the largest and most important industries in the world. Cars, buses, and other engine-based vehicles abound in every country on the planet, and it is continually evolving, with electric cars, hybrids, self-driving vehicles, and so on. Technologies that were once thought to be decades away are now on our roads right now. Engineers, technicians, and managers are constantly needed in the industry, and, often, they come from other areas of engineering, such as electrical engineering, process engineering, or chemical engineering. Introductory books like this one are very useful for engineers who are new to the industry and need a tutorial. Also valuable as a textbook for students, this introductory volume not only covers the basics of automotive engineering, but also the latest trends, such as self-driving vehicles, hybrids, and electric cars. Not only useful as an introduction to the science or a textbook, it can also serve as a valuable reference for technicians and engineers alike. The volume also goes into other subjects, such as maintenance and performance. Data has always been used in every company irrespective of its domain to improve the operational efficiency and performance of engines. This work deals with details of various automotive systems with focus on designing various components of these system to suit the working conditions on roads. Whether a textbook for the student, an introduction to the industry for the newly hired engineer, or a reference for the technician or veteran engineer, this volume is the perfect introduction to the science of automotive engineering.

Photodiodes or photodetectors are in one boat with our human race. Efforts of people in related fields are contained in this book. This book would be valuable to those who want to obtain knowledge and inspiration in the related area.

Two centuries after the original invention, the Stirling engine is now a commercial reality as the core component of domestic CHP (combined heat and power) – a technology offering substantial savings in raw energy utilization relative to centralized power generation. The threat of climate change requires a net reduction in hydrocarbon consumption and in emissions of 'greenhouse' gases whilst sustaining economic growth. Development of technologies such as CHP addresses both these needs. Meeting the challenge involves addressing a range of issues: a long-standing mismatch between inherently favourable internal efficiency and wasteful external heating provision; a dearth of heat transfer and flow data appropriate to the task of first-principles design; the limited rpm capability when operating with air (and nitrogen) as working fluid. All of these matters are explored in depth in The air engine: Stirling cycle power for a sustainable future. The account includes previously unpublished insights into the personality and potential of two related regenerative prime movers - the pressure-wave and thermal-lag engines. Contains previously unpublished insights into the pressure-wave and thermal-lag engines Deals with a technology offering scope for saving energy and reducing harmful emissions without compromising economic growth Identifies and discusses issues of design and their implementation

A fundamental reassessment of the contribution of patenting to British industrialisation during the eighteenth and nineteenth centuries.

Various combinations of commercially available technologies could greatly reduce fuel consumption in passenger cars, sport-utility vehicles,
minivans, and other light-duty vehicles without compromising vehicle performance or safety. Assessment of Technologies for Improving Light Duty Vehicle Fuel Economy estimates the potential fuel savings and costs to consumers of available technology combinations for three types of engines: spark-ignition gasoline, compression-ignition diesel, and hybrid. According to its estimates, adopting the full combination of improved technologies in medium and large cars and pickup trucks with spark-ignition engines could reduce fuel consumption by 29 percent at an additional cost of $2,200 to the consumer. Replacing spark-ignition engines with diesel engines and components would yield fuel savings of about 37 percent at an added cost of approximately $5,900 per vehicle, and replacing spark-ignition engines with hybrid engines and components would reduce fuel consumption by 43 percent at an increase of $6,000 per vehicle. The book focuses on fuel consumption—the amount of fuel consumed in a given driving distance—because energy savings are directly related to the amount of fuel used. In contrast, fuel economy measures how far a vehicle will travel with a gallon of fuel. Because fuel consumption data indicate money saved on fuel purchases and reductions in carbon dioxide emissions, the book finds that vehicle stickers should provide consumers with fuel consumption data in addition to fuel economy information.

This book aims to strengthen the knowledge base dealing with Air Pollution. The book consists of 21 chapters dealing with Air Pollution and its effects in the fields of Health, Environment, Economy and Agricultural Sources. It is divided into four sections. The first one deals with effect of air pollution on health and human body organs. The second section includes the Impact of air pollution on plants and agricultural sources and methods of resistance. The third section includes environmental changes, geographic and climatic conditions due to air pollution. The fourth section includes case studies concerning of the impact of air pollution in the economy and development goals, such as, indoor air pollution in México, indoor air pollution and millennium development goals in Bangladesh, epidemiologic and economic impact of natural gas on indoor air pollution in Colombia and economic growth and air pollution in Iran during development programs. In this book the authors explain the definition of air pollution, the most important pollutants and their different sources and effects on humans and various fields of life. The authors offer different solutions to the problems resulting from air pollution.

This book is based on the research work by the author regarding e-villages at a global scale that are eco friendly with built-in incentives to attract neighboring villages to copy this model. The target population is all humanity especially residents of regions that are prone to disasters by human intervention. The second objective is to reverse the migration trend of general population from countryside to metropolitan cities in search of better services. This goal can be achieved by rejuvenating village population, which is the core source of our food supply chain. At the same time to ease the pressure from overcrowded cities that cannot handle more population beyond their capacity; The third objective is to empower rural population with simple tools of “non- evasive Eco friendly technologies” to access almost the same level of services at home as they would get, should they migrate to a metropolitan.; Forth objective is to tie up their economic interests of diverse population by making them interdependent on each other’s skills and services for their survival, prosperity & sustainability; Unlike a communistic or socialistic models, where one is not allowed to have personal holdings, thereby restricting their chances to achieve their personal goals by exercising neither their potential, nor it is pure capitalistic in nature to give unlimited unchecked power over other fellow beings. It is a hybrid lifestyle to get the best out of all models, make use of their potential to gain savings in their living expenses up to 75%. Additionally to have long-term social security in the form of joint investment with immediate return higher than they could otherwise get from open market and a great return for their retirement. Another purpose of this book is to educate those minds thinking to embrace eco sustainability To establish a blueprint for those who may follow.
Contributions by Surhid Gautam and Lit-Mian Chan. This book presents a state-of-the-art review of vehicle emission standards and regulations and provides a synthesis of worldwide experience with vehicle emission control technologies and their applications in both industrial and developing countries. Topics covered include: * The two principal international systems of vehicle emission standards: those of North America and Europe * Test procedures used to verify compliance with emissions standards and to estimate actual emissions * Engine and aftertreatment technologies that have been developed to enable new vehicles to comply with emission standards, as well as the cost and other impacts of these technologies * An evaluation of measures for controlling emissions from in-use vehicles * The role of fuels in reducing vehicle emissions, the benefits that could be gained by reformulating conventional gasoline and diesel fuels, the potential benefits of alternative cleaner fuels, and the prospects for using hydrogen and electric power to run motor vehicles with ultra-low or zero emissions. This book is the first in a series of publications on vehicle-related pollution and control measures prepared by the World Bank in collaboration with the United Nations Environment Programme to underpin the Bank’s overall objective of promoting transport that is environmentally sustainable and least damaging to human health and welfare.

This book highlights the important need for more efficient and environmentally sound combustion technologies that utilise renewable fuels to be continuously developed and adopted. The central theme here is two-fold: internal combustion engines and fuel solutions for combustion systems. Internal combustion engines remain as the main propulsion system used for ground transportation, and the number of successful developments achieved in recent years is as varied as the new design concepts introduced. It is therefore timely that key advances in engine technologies are organised appropriately so that the fundamental processes, applications, insights and identification of future development can be consolidated. In the future and across the developed and emerging markets of the world, the range of fuels used will significantly increase as biofuels, new fossil fuel feedstock and processing methods, as well as variations in fuel standards continue to influence all combustion technologies used now and in coming streams. This presents a challenge requiring better understanding of how the fuel mix influences the combustion processes in various systems. The book allows extremes of the theme to be covered in a simple yet progressive way.

Written for mechanical novices who may not know their catalytic converters from their universal joints, this practical guide helps teach a basic understanding of how automobiles function. Devices are grouped according to their habitats—under the hood, inside the car, and more—to help identify the technology in question. Solving automotive puzzles such as where exactly does a dipstick dip and what is rack and pinion steering, this handy reference illuminates what’s going on under the hood without all that grime and grease.

We stand at the cusp of a mobility revolution unlike anything we have seen since the days of Gottlieb Daimler and Henry Ford, 130 years ago. Three massively significant and converging automotive trends – electrification, self-driving technology and car-sharing – will together transform the way we live, work, and move about in our increasingly urban environment. This book coins the term ‘Mobility Revolution’ and is a summary of the ‘three zeroes’ that are already defining the future for the automobile industry: Zero Emissions, Zero Accidents and Zero Ownership. The impact will go beyond the automotive industry and its suppliers – urban infrastructure, construction, logistics – and even local cafés will need to think and operate differently. Based on countless interviews, the book is highly current and thoroughly researched, whilst also fun to read. It is an eye-opener to the new world that awaits us as the Mobility Revolution unfolds. The Mobility Revolution is a must-read for anyone interested in the future of the automobile industry, our cities, and the way we live.
The Federal Aviation Administration’s Airplane Flying Handbook provides pilots, student pilots, aviation instructors, and aviation specialists with information on every topic needed to qualify for and excel in the field of aviation. Topics covered include: ground operations, cockpit management, the four fundamentals of flying, integrated flight control, slow flights, stalls, spins, takeoff, ground reference maneuvers, night operations, and much more. The Airplane Flying Handbook is a great study guide for current pilots and for potential pilots who are interested in applying for their first license. It is also the perfect gift for any aircraft or aeronautical buff.

Hybrid drives and the operation of hybrid vehicles are characteristic of contemporary automotive technology. Together with the electronic driver assistant systems, hybrid technology is of the greatest importance and both cannot be ignored by today’s car drivers. This technical reference book provides the reader with a firsthand comprehensive description of significant components of automotive technology. All texts are complemented by numerous detailed illustrations.

This book covers the various advanced reciprocating combustion engine technologies that utilize natural gas and alternative fuels for transportation and power generation applications. It is divided into three major sections consisting of both fundamental and applied technologies to identify (but not limited to) clean, high-efficiency opportunities with natural gas fueling that have been developed through experimental protocols, numerical and high-performance computational simulations, and zero-dimensional, multizone combustion simulations. Particular emphasis is placed on statutes to monitor fine particulate emissions from tailpipe of engines operating on natural gas and alternative fuels.

In A Philosophy of Technology: From Technical Artefacts to Sociotechnical Systems, technology is analysed from a series of different perspectives. The analysis starts by focussing on the most tangible products of technology, called technical artefacts, and then builds step-wise towards considering those artefacts within their context of use, and ultimately as embedded in encompassing sociotechnical systems that also include humans as operators and social rules like legislation. Philosophical characterisations are given of technical artefacts, their context of use and of sociotechnical systems. Analyses are presented of how technical artefacts are designed in engineering and what types of technological knowledge is involved in engineering. And the issue is considered how engineers and others can or cannot influence the development of technology. These characterisations are complemented by ethical analyses of the moral status of technical artefacts and the possibilities and impossibilities for engineers to influence this status when designing artefacts and the sociotechnical systems in which artefacts are embedded. The running example in the book is aviation, where aeroplanes are examples of technical artefacts and the world aviation system is an example of a sociotechnical system. Issues related to the design of quiet aeroplane engines and the causes of aviation accidents are analysed for illustrating the moral status of designing, and the role of engineers therein. Table of Contents: Technical Artefacts / Technical Designing / Ethics and Designing / Technological Knowledge / Sociotechnical Systems / The Role of Social Factors in Technological Development / Ethics and Unintended Consequences of Technology