

The Virtue Of Prosperity Finding Values In An Age Of Techno Affluence

[#prosperity](#) [#techno-affluence](#) [#values](#) [#modern age](#) [#technology](#)

Explore the complex relationship between prosperity and values in our modern age of techno-affluence. This exploration delves into how we can maintain a sense of purpose and meaning while navigating a world increasingly shaped by technology and material abundance, ultimately aiming to find a virtuous path within this landscape.

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The Virtue of Prosperity

By the controversial social critic and author of "Illiberal Education" comes a big-hearted book that revels the pursuit of wealth through capitalism as morally edifying.

The Virtue Of Prosperity

In The Virtue of Prosperity, Dinesh D'Souza examines the spiritual and social crisis spawned by the new economy and new technologies of the last ten years. D'Souza questions the basic premise of the American dream that prosperity and "progress" will better the human condition. Anchored in history, rich in anecdote, and supported by state-of-the-art data, The Virtue of Prosperity is a tough-minded critique of our high-tech culture, with a surprising prescription for doing well and doing good.

The Virtue of Prosperity

Discusses the potential problems of technological advancement in America, such as class conflict and transformation of the human race due to life-span lengthening and parents' choosing children's genetic makeups, and proposes ways of using technology to promote overall prosperity while preserving values.

The Good of Affluence

wealth incompatible with true Christianity? In The Good of Affluence John R. Schneider reopens the debate over the proper Christian attitude toward money, arguing, ultimately, that Scripture does indeed provide support for the responsible possession of wealth. This is a provocative book of Christian theology, written to help people seeking God in a culture that has grown from modern capitalism. By comparing classic Christian teaching on wealth with the realities of our modern economic world, Schneider challenges the common presumption that material affluence is inherently bad. Careful

interpretation of Scripture narratives -- creation, exodus, exile, and more -- also shows that abundance is the condition that God envisions for all human beings and that faithful persons of wealth are part of this plan. Schneider believes that the "wealth-as-blessing" themes of the Old Testament are not to be spiritualized and do not run contrary to New Testament teachings but provide exactly the frame of reference for the incarnate identity, life, and teaching of Jesus, who came to make real the messianic feast, both in this age and in the age to come. Through insightful engagement with the biblical text Schneider overturns some of the most cherished and unquestioned assumptions of influential Christian writers (particularly Ronald Sider) on modern capitalist affluence. Yet Schneider's message is also finely balanced with the need for responsible Christian living. He offers rich Christians biblical affirmation but also challenges them to a life shaped by an uncommon sense of stewardship and compassion. Incisive, thought provoking, and biblically grounded, *The Good of Affluence* is a superb resource for anyone -- students, professors, businesspeople, general readers, discussion groups -- wishing to grapple seriously with the subject of faith and wealth.

Loving the Poor, Saving the Rich

The issue of wealth and poverty and its relationship to Christian faith is as ancient as the New Testament and reaches even further back to the Hebrew Scriptures. From the beginnings of the Christian movement, the issue of how to deal with riches and care for the poor formed an important aspect of Christian discipleship. This careful study shows how early Christians adopted, appropriated, and transformed the Jewish and Greco-Roman moral teachings and practices of giving and patronage. As Helen Rhee illuminates the early Christian understanding of wealth and poverty, she shows how it impacted the formation of Christian identity. She also demonstrates the ongoing relevance of early Christian thought and practice for the contemporary church.

The Child in American Evangelicalism and the Problem of Affluence

This work presents an evangelical theology of the child nurtured in the context of American evangelicalism and affluence. It employs an eclectic theological-critical method to produce a theological anthropology of the affluent American-evangelical child (AAEC) through interdisciplinary evangelical engagement of American history, sociology, and economics. Sims articulates how affluence constitutes a significant impediment to evangelical nurture of the AAEC in the "discipline and instruction of the Lord." Thus, the problem he addresses is nurture in evangelical affluence, conceived as a theological-anthropological problem. Nurture in the cultural matrices of the evangelical affluence generated by technological consumer capitalism in the U.S. impedes spiritual and moral formation of the AAEC for discipleship in the way of the cross. This impediment risks disciplinary formation of the AAEC for capitalist culture, cultivates delusional belief that life consists in an abundance of possessions, and hinders the practice of evangelical liberation of the poor on humanity's underside. The result is the AAEC's spiritual-moral "lack" in late modernity. Chapter 1 introduces the problem of the AAEC. Chapters 2 and 3 provide a diachronic lens for the theological anthropology of the AAEC through critical assessment of the theological anthropologies of the child in Jonathan Edwards, Horace Bushnell, and Lawrence Richards. Chapters 4 and 5 constitute the synchronic perspective of the AAEC. Chapter 4 presents an evangelical sociology of the AAEC, drawing upon William Corsaro's theory of "interpretive reproductions," and chapter 5 constructs an evangelical theology of the AAEC through critical interaction with John Schneider's moral theology of affluence. Chapter 6, "Whither the AAEC?," concludes with a recapitulation of the work and a forecast of possible futures for the AAEC in the twenty-first century.

Rich, Free, and Miserable

Compared to much of the rest of the world, America and its citizens are rich. But many people are also deeply miserable—at work, at home, or both. In this provocative book, author John Brueggemann unpacks why so many people are struggling, both emotionally and financially, in a nation that looks so prosperous on the surface. From a hospital patient reduced to a balance sheet to a parent working such long hours that he misses dinner, Brueggemann argues that market thinking has permeated every corner of our lives. In the pursuit of more and better, relationships erode, to the detriment of individuals, communities, and the nation as a whole. *Rich, Free, and Miserable* not only outlines these pressing social problems, but also offers practical suggestions for people looking to make a positive change.

The Case for the Living Wage

Waltman provides a detailed background for debates on welfare, workfare, and the "living wage." Reviews U.S. policy and demonstrates why early advocates of the welfare state wanted a living wage, why it has failed, and how it could be an essential element in providing economic justice and contributing to the prosperity of all. Also explains the difference between a minimum and a living wage and a fair and a just wage.causes and issues of poverty and inequality.

Does Marketing Need Reform?: Fresh Perspectives on the Future

Many marketers fear that the field's time-worn principles are losing touch with today's realities. "Does Marketing Need Reform?" collects the insights of a select group of leading marketing thinkers and practitioners who are committed to restoring marketing's timeless values. The book sets the agenda for a new generation of marketing principles. As the editors note in their introduction; "Marketing is a powerful force backed up by huge resources. It must be entrusted only to those with the wisdom to use it well." The contributors seek to understand and explain how and why marketing has veered significantly off course in order to steer it back in the right direction. The concepts and perspectives presented in this book will inspire a renewed commitment to the highest ideals of marketing - serving customers individually and society as a whole by synergistically aligning company, customer, and social interests.

Moral Soundings

The 21 readings serve as an adjunct to textbooks in courses on the moral health of the US. Taken mostly from public interest journals and written by active participants in the public debate about values, they are designed to demonstrate that the common denominator to many disagreements is a difference over the meaning and value of personal autonomy. Annotation ©2004 Book News, Inc., Portland, OR (booknews.com)

Why America's Top Pundits Are Wrong

This absorbing collection of essays subjects such popular commentators as Thomas Friedman, Samuel Huntington, Robert Kaplan, and Dinesh D'Souza to cold, hard scrutiny and finds that their writing is often misleadingly simplistic, culturally ill-informed, and politically dangerous. Mixing critical reflection with insights from their own fieldwork, twelve distinguished anthropologists respond by offering fresh perspectives on globalization, ethnic violence, social justice, and the biological roots of behavior. They take on such topics as the collapse of Yugoslavia, the consumer practices of the American poor, American foreign policy in the Balkans, and contemporary debates over race, welfare, and violence against women. In the clear, vigorous prose of the pundits themselves, these contributors reveal the hollowness of what often passes as prevailing wisdom and passionately demonstrate the need for a humanistically complex and democratic understanding of the contemporary world.

Godforsaken

Examines the issue of human suffering and explores why a good God allows it.

Politics for the Greatest Good

Makes the case for prudential, incremental change as the best pro-life advocacy Written for both practitioners and students of public policy and political science Leading policy strategist Clarke Forsythe speaks clearly into the fray of political striving. He campaigns for a rich understanding of the virtue of prudence, and for its application to contemporary public policy. As Forsythe explains, prudence, in its classical sense, is the ability to apply wisdom to right action. In this book he explores the importance of applying the principles of prudence to the realm of politics, especially that of bioethics. In particular, Forsythe applies these concepts to the ongoing debate among pro-life advocates regarding gradual versus radical change as the most effective way to achieve political and legislative goals. Drawing on the Bible, philosophy, and the wisdom of historical figures such as Abraham Lincoln and William Wilberforce, he makes a strong case for a strategy of incremental change or political prudence.

OverSuccess

Why are one in three American adults pervasively dissatisfied with their lives? Why is major depression seven times more likely among those born after 1970 than their grandparents? Why are one in four of us addicted to at least one substance or behavior? Why is America drowning in record personal and public debt? Why did over 100,000 people humiliate themselves this year auditioning for Fox's

American Idol? Why are 80 percent of women unhappy with their bodies? What is it about contemporary America that connects the swelling incidence of depression, behavioral addictions, eating disorders, debt, materialism, sleep deprivation, family breakdown, rudeness, fame fixation, ethical collapse, mistrust, and monstrous acts of personal violence? Drawing from emerging science in several fields and insights about our transformed social lives, Rubens explains how genes, commercial culture, and global hyper-competition have locked tens of millions of Americans into an unwinnable success benchmarks race and unleashed an epidemic of status defeat. OverSuccess shows how and why the resulting social and psychological pathologies are different for baby boomers, men, and women. Offering hope for our future, Rubens outlines 20 ways that individuals, businesses, and voluntary organizations can satisfy the American drive for recognition and personal achievement without the toxic burdens of OverSuccess. These cures range from holding the door for strangers and somatic cell gene therapy, to responsible displays of wealth and building village-scale social and business organizations.

Adolescents and Literacies in a Digital World

By embracing a rapidly changing digital world, the so-called millennial adolescent is proving quite adept at breaking down age-old distinctions among disciplines, between high- and low-brow media culture, and within print and digitized text types. *Adolescents and Literacies in a Digital World* explores the significance of digital technologies and media in youth's negotiated approaches to making meaning within a broad array of self-defined literacy practices. Organized around a series of case studies, this book blends theories of an attention economy, generational differences, communication technologies, and neoliberal enactive texts with actual accounts of adolescents' use of instant messaging, shape-shifting portfolios, critical inquiry, and media production.

Capitalism and Commerce

In *Capitalism and Commerce*, Edward Younkins provides a clear and accessible introduction to the best moral and economic arguments for capitalism. Drawn from over a decade of business school teaching, Younkins's work offers the student of political economy and the educated layperson a clear, systematic treatment of the philosophical concepts that underpin the idea of capitalism and the business, legal, and political institutions that impact commercial enterprises. Divided into seven parts, the work discusses capitalism and morality; individuals, communities, and the role of the state; private and corporate ownership; entrepreneurship and technological progress; law, justice, and corporate governance; and the obstacles to a free market and limited government.

International Development Law

This theoretical and practical overview of the international legal architecture between developing countries and advanced nations is divided into two parts, the first providing a theoretical overview of the philosophical implications of international development law principles; the second deals with international financial architecture.

The Evolution of Future Consciousness

Are there any unique qualities that humans possess that make us special within the world of nature? Since the beginnings of recorded history, we have pondered this question. What if many of humanity's highest qualities and unique achievements, such as technology, civilization, morals, self-consciousness, freedom of choice, religion, and science are all built upon a single distinctive human capacity? It may be that our highly evolved mental power to envision and think about the future is at the core of our greatest accomplishments and most unique human attributes. In *The Evolution of Future Consciousness*, psychologist and futurist Tom Lombardo examines the human ability to be conscious of the future, to create ideas, images, goals, and plans about the future, to think about these mental creations and use them in directing one's actions and one's life. In the opening chapter, he looks at the psychology of future consciousness and its values and benefits, as well as ways to enhance this human ability. Subsequent chapters describe the emergence of future consciousness in pre-historic times and how it was critical in the development of love and bonding, the family, tools, and human aggression and hunting; the central importance of the future and time in early myths, religions, and classical philosophy; and the rise of modern futurist thinking, covering the Renaissance, the Scientific Revolution, the Western Enlightenment, and the Romantic counter-reaction. The book concludes with Darwin and how the theory of evolution revolutionized humanity's conception of both the past and the future. In its companion volume, *Contemporary Futurist Thought*, Tom Lombardo completes his survey

of the historical development of future consciousness, discussing significant ideas and approaches to the future in the last century, including science fiction, future studies, and an extensive array of recent theories and paradigms of the future.

Why Conservatives Tell Stories and Liberals Don't

Why do conservatives tell stories? Because it helps them win elections and assail liberal policies like health care reform and economic stimulus. "Why" is important, but the "what" and the "how" behind the stories that conservatives tell are equally interesting, and in this new book, David Ricci reveals all. He shows how conservative activists and candidates tell many tales that come together to project a large-scale story; a cultural narrative; a vision of what America is and what it should do to prosper socially, economically, and politically. Liberals, by contrast, tend to look for theories rather than stories, for mathematical explanations rather than theological axioms, for data rather than anecdotes, and for statistics rather than homilies. The difference is paradoxical. Liberals are unlikely to fashion sweeping narratives that capture the public's attention and commitment. Yet conservatives may tell attractive stories like the ones that got us into Iraq that momentarily capture voter support but end up costing the country more than it can afford."

Money and Faith

Talking about money in a personal way remains more of a taboo than sex or politics. This seems odd within a Christian context, since Jesus addressed topics of money, poverty, and wealth more than any other concerns. For many, money becomes an idol; we see it in our own culture as we pursue economic growth no matter the cost to the overall well-being of God's creation. When that happens, "enough" is always more than we have right now, and scarcity becomes the lens through which we see the world. On a personal level, this book opens up issues of scarcity and abundance, idolatry and freedom; on a societal level, it invites exploration of greater equity and sustainability. On both levels, it empowers individuals and groups to apply their faith's values in practical ways while taking pastoral and prophetic stances. The author suggests we need to experience the nurturing companionship of a wise, compassionate pastor or spiritual guide in our relationship to money, while also needing to experience the power, strength, anger, and call to repentance of an Old Testament prophet. People want to connect their values with everyday concerns, while discovering ways to make a positive difference. This book helps them do both. Includes a comprehensive study guide within the book for groups and individuals. Contributors include: Henri Nouwen, Dave Barry, Walter Brueggemann, David Boyle, Lynne Twist, Lewis Hyde, William Stringfellow, John Haughey, Ched Myers, Bill McKibben, Sallie McFague, William Greider, Leonardo Boff, Jean-Bertrand Aristide, Victoria Tauli-Corpuz, Maria Harris, Rich Lang, Wayne Muller, Sharon Parks, Rodney Clapp, Ted Nace, Lester Brown, Pete Barnes, Andy Loving, Edgar Cahn, Sarah Tarver-Wahlquist, Susan Wilkes, Jim Klobuchar

The Hidden Structure of Violence

Acts of violence assume many forms: they may travel by the arc of a guided missile or in the language of an economic policy, and they may leave behind a smoldering village or a starved child. The all-pervasiveness of violence makes it seem like an unavoidable, and ultimately incomprehensible, aspect of the modern world. But, in this detailed and expansive book, Marc Pilisuk and Jen Rountree demonstrate otherwise. Widespread violence, they argue, is in fact an expression of the underlying social order, and whether it is carried out by military forces or by patterns of investment, the aim is to strengthen that order for the benefit of the powerful. The Hidden Structure of Violence marshals vast amounts of evidence to examine the costs of direct violence, including military preparedness and the social reverberations of war, alongside the costs of structural violence, expressed as poverty and chronic illness. It also documents the relatively small number of people and corporations responsible for facilitating the violent status quo, whether by setting the range of permissible discussion or benefiting directly as financiers and manufacturers. The result is a stunning indictment of our violent world and a powerful critique of the ways through which violence is reproduced on a daily basis, whether at the highest levels of the state or in the deepest recesses of the mind.

On Nabokov, Ayn Rand and the Libertarian Mind

On Nabokov, Ayn Rand and the Libertarian Mind not only conjoins two seemingly divergent authors but also takes on the larger picture of libertarian trends and ideologies. These timely topics further intermingle with Bell-Villada's own conflicted relationship – personal, cultural, satirical, literary – to the

“odd pair” and their ways of thinking. The inclusion of Louis Begley’s essay adds yet another dimension to this unique, wide-ranging meditation on art and politics, history and memory.

Thinking Creatively in Turbulent Times

This outstanding collection of essays offers thought-provoking insights on a range of future-shaping issues, such as harnessing the powers of a coming “digital transformation,” creating more livable cities, dealing with the impacts of immigration, transforming school systems to meet the needs of the future economy, solving the drug-abuse problem through systems thinking, and overcoming traps in thinking about the future.

Dismissing Jesus

What is the way of the cross? Why does it create resistance? How do we answer objections to it? The revival of interest in Christ’s kingdom and radical discipleship has produced a wave of discussions, but sometimes those discussions are scattered. This book aims to pull together in one place the core claims of the way of the cross. It aims to examine the deeply cherished assumptions that hinder us from hearing Jesus’s call. When we do that, we’ll see that the gospel of Christ is not primarily about getting into heaven or about living a comfortable, individually pious, middle-class life. It is about being free from the ancient, pervasive, and delightful oppression of Mammon in order to create a very different community, the church, an alternative city-kingdom here and now on earth by means of living and celebrating the way of the cross--the reign of joyful weakness, renunciation, self-denial, sharing, foolishness, community, and love overcoming evil.

Wisdom, Consciousness, and the Future

Wisdom, Consciousness, and the Future: Collected Essays Thomas Lombardo, Ph. D. Center for Future Consciousness
Wisdom, Consciousness, and the Future is a profound, deeply important, and timely book that concerned people and change agents everywhere will want to read. Copthorne Macdonald
The Wisdom Page
As a college professor and teacher of psychology, philosophy, and the future, Tom Lombardo’s mind has been drawn toward such questions as: How will the human mind evolve in the future? In fact, how should the human mind evolve and improve itself? What might be the standards and ideals that guide this evolution? And what role does ethical development (or evolution) play in this process? The twenty previously published articles collected together in Wisdom, Consciousness, and the Future chronicle the development of Dr. Lombardo’s ideas on these related questions and topics, and together constitute a theoretical perspective on the nature of the human mind, on how to best educate and evolve the human mind in the future, and how to integrate into this vision the central importance of both future consciousness (as a key dimension of human consciousness) and ethical character virtues. True to its title, three key themes emerge in this collection: wisdom, consciousness, and the future, and all three concepts tie into the author’s main contribution to the field of futures studies, future consciousness. Numerous essays (for example, *Evolving Future Consciousness through the Pursuit of Virtue* and *The Evolution and Psychology of Future Consciousness*) address the nature of future consciousness, a term Dr. Lombardo defines as the complex set of mental capacities all humans possess for imagining, conceptualizing, and approaching the future. Aside from describing the psychological make-up of future consciousness, which includes emotional, motivational, cognitive, and personal dimensions, the author also explains in numerous essays (such as *Developing Constructive and Creative Attitudes about the Future*) how to proactively enhance one’s future consciousness. Other essays deal directly with consciousness and the human mind in the broadest sense (as in *The Future Evolution of the Ecology of Mind*) and connect this general area of inquiry with the futurist question of how consciousness and mind might evolve in the future. Dr. Lombardo proposes that the progressive emergence of cosmic consciousness is the central evolutionary trajectory of the human mind. Hence, this book contains essays on both consciousness of the future and consciousness in the future. While the discussion of consciousness and the future fascinates in its own right, Dr. Lombardo is a holistic and deep thinker who searches for connections among myriad philosophical topics. A number of essays address the question of ethics and virtue and how such concepts connect with both future consciousness and the evolution of consciousness in the future. He then expands on this theme to explore how virtue applies to the goals of higher education in essays such as *Ethical Character Development and Personal and Academic Excellence*. In thinking through the concept of virtue and how it applies to consciousness, education, and the future, Dr. Lombardo emphasizes the one key virtue—wisdom—that provides the center of gravity around which all other character virtues

revolve. Indeed, if any one concept unites the majority of essays in this collection, it is wisdom. In *The Wisdom of Future Consciousness*, the author argues that wisdom is the highest expression of future consciousness, and systematically describes the numerous connections between wisdom and heightened future consciousness. Further, according to the author, wisdom is the key ideal that we should model and teach within education, now and in the future. This argue

The Demise of the Library School

In *The Demise of the Library School*, Richard J. Cox places the present and future of professional education for librarianship in the debate on the modern corporate university. The book is a series of meditations on critical themes relating to the education of librarians, archivists, and other information professionals, playing off of other commentators analyzing the nature of higher education and its problems and promises.

The Paradox of Democratic Capitalism

A truly interdisciplinary enterprise, *The Paradox of Democratic Capitalism* examines the interplay of ideas about politics, economics, and law in American society from the pre-revolutionary era to the eve of the September 11 attacks. David F. Prindle argues that while the United States was founded on liberalism, there is constant tension between two ideals of the liberal tradition: capitalism and democracy. Tracing the rise of natural law doctrine from neoclassical economics, Prindle examines the influence of economic development in late medieval society on the emergence of classical liberalism in early America and likens that influence to the impact of orthodox economics on contemporary American society. Prindle also evaluates political, economic, and legal ideas through the lens of his own beliefs. He warns against the emerging extremes of liberal ideology in contemporary American politics, where the right's definition of capitalism excludes interference from democratic publics and the left's definition of democracy excludes a market-based economy.

Human Hierarchies

Human beings are hierarchical animals. Always and everywhere, people have developed social ranking systems. These differ dramatically in how they are organized, but the underlying causal mechanisms that create and sustain them are the same. Whether they are on the top or bottom of the heap, people attempt to be superior to some other persons or group. This is the root of Melvyn L. Fein's thesis presented in *Human Hierarchies: A General Theory*. Fein traces the development of changes from hunter-gatherer times to our own techno-commercial society. In moving from small to large communities, humans went from face-to-face contests for superiority to more anonymous and symbolic ones. Societies evolved from hunting bands where the parties knew each other through big-men societies, chieftainships, agrarian empires, patronage chains, caste societies, estate systems, and market-oriented democracies. Where once small groupings were organized primarily by strong forces such as personal relationships, the now standard large groupings are more dependent on weaker forces such as those provided by social roles. Bureaucracies and professional roles have become prominent. Bureaucracies allow large-scale organizations to maintain control of people by limiting the potential destructiveness of unregulated tests of strength and by clarifying chains of command. Their rigidity and unresponsiveness requires that they be supplemented by professional roles. At the same time, a proliferation of self-motivated experts delegate authority downward, thereby introducing a more flexible decentralization. This analysis is a unique and significant advance in both the sociology and anthropology of stratification among humans.

Roads to Reconciliation: Conflict and Dialogue in the Twenty-first Century

Unlike other books on conflict resolution that focus on particular places and moments in history, this original work attempts to understand the process from many different perspectives and in many different contexts - from international political conflicts, to racial and religious struggles within one culture, to the internal conflicts of individuals struggling with the desire for revenge in the wake of 9/11. Designed as a starting point for meaningful dialogue on the elusive concept of reconciliation, the book includes views from Christians and Muslims, scholars and politicians, and draws on religion, psychology, cultural studies, education theory, history, and law.

Post-Liberalism

Liberalism is dying—despite its superficial appearance of vigor. Most of its adherents still believe it is the wave of the future, but they are clinging to a sinking dream. So says Melvyn L. Fein, who argues that liberalism has made countless promises, almost none of which have come true. Under its auspices, poverty was not eliminated, crime did not diminish, the family was not strengthened, education was not improved, nor was universal peace established. These failures were not accidental; they flow directly from liberal contradictions. In *Post-Liberalism*, Fein demonstrates why this is the case. Fein contends that an "inverse force rule" dictates that small communities are united by strong forces, such as personal relationships and face-to-face hierarchies, while large-scale societies are integrated by weak forces, such as technology and social roles. As we become a more complex techno-commercial society, the weak forces become more dominant. This necessitates greater decentralization, in direct opposition to the centralization that liberals celebrate. Paradoxically, this suggests that liberalism, as an ideology, is regressive rather than progressive. If so, it must fail. Liberals assume that some day, under their tutelage, these trends will be reversed, but this contradicts human nature and history's lessons. According to Fein, we as a species are incapable of eliminating hierarchy or of loving all other humans with equal intensity. Neither, as per Emile Durkheim, are we able to live in harmony without appropriate forms of social cohesion.

Situated Language and Learning

Why do poor and minority students under-perform in school? Do computer games help or hinder learning? What can new research in psychology teach our educational policy-makers? In this major new book, Gee tackles the 'big ideas' about language, literacy and learning, putting forward an integrated theory that crosses disciplinary boundaries, and applying it to some of the very real problems that face educationalists today. *Situated Language and Learning* looks at the specialist academic varieties of language that are used in disciplines such as mathematics and the sciences. It argues that the language acquisition process needed to learn these forms of language is not given enough attention by schools, and that this places unfair demands on poor and minority students. The book compares this with learning as a process outside the classroom, applying this idea to computer and video games, and exploring the particular processes of learning which take place as a child interacts with others and technology to learn and play. In doing so, Gee examines what video games can teach us about how to improve learning in schools and engages with current debates on subjects such as 'communities of practice' and 'digital literacies'. Bringing together the latest research from a number of disciplines, *Situated Language and Learning* is a bold and controversial book by a leading figure in the field, and is essential reading for anyone interested in education and language.

Good Citizenship in America

Good Citizenship in America describes a civic ideal of who enjoys membership in the state and what obligations that entails, and traces its history in America. Until 1865, this ideal called for virtuous political behavior (republicanism) but extended the franchise beyond early republican expectations (democracy). The book follows the widening of the franchise to women and people of color and to those with little or no property following economic development post 1865. In the twentieth century, the civic ideal was influenced by the increase of consumerism, its peak after World War II, and its subsequent decline. More recent citizenship, informed by environmental problems and growing global Darwinism, places a bigger and bigger emphasis on the 'economic conscience'. This is an easily accessible analysis of civic trends in America, and one that highlights much of what is decent in American life.

School Choice

School choice has lately risen to the top of the list of potential solutions to America's educational problems, particularly for the poor and the most disadvantaged members of society. Indeed, in the last few years several states have held referendums on the use of vouchers in private and parochial schools, and more recently, the Supreme Court reviewed the constitutionality of a scholarship program that uses vouchers issued to parents. While there has been much debate over the empirical and methodological aspects of school choice policies, discussions related to the effects such policies may have on the nation's moral economy and civil society have been few and far between. *School Choice*, a collection of essays by leading philosophers, historians, legal scholars, and theologians, redresses this situation by addressing the moral and normative side of school choice. The twelve essays, commissioned for a conference on school choice that took place at Boston College in 2001, are organized into

four sections that consider the relationship of school choice to equality, moral pluralism, institutional ecology, and constitutionality. Each section consists of three essays followed by a critical response. The contributors are Patrick McKinley Brennan, Charles L. Glenn, Amy Gutmann, David Hollenbach, S. J., Meira Levinson, Sanford Levinson, Stephen Macedo, John T. McGreevy, Martha Minow, Richard J. Mouw, Joseph O'Keefe, S. J., Michael J. Perry, Nancy L. Rosenblum, Rosemary C. Salomone, Joseph P. Viteritti, Paul J. Weithman, and Alan Wolfe.

Harvard Political Review

Is business just a way to make money? Or can the marketplace a venue for service to others? Scott B. Rae and Kenman L. Wong seek to explore this and other critical business issues from a uniquely Christian perspective, offering up a vision for work and service that is theologically grounded and practically oriented. Among the specific questions they address along the way are these: What implications does the Christian story have for the vision, mission or sense of purpose that shapes business engagement? What parts of business can be affirmed and practiced "as is" and what parts need to be rejected or transformed? What challenges exist as attempts are made to live out Christian ideals in a broken world characterized by tight margins, fierce competition and short-term investor pressures? How do Christian values inform specific functional areas of business such as the management of people, marketing and environmental sustainability? Business can be even more than an environment through which individual Christians grow in Christlikeness. In this book you'll discover how it can also be a means toward serving the common good. The Christian Worldview Integration Series, edited by J. P. Moreland and Francis J. Beckwith, seeks to promote a robust personal and conceptual integration of Christian faith and learning, with textbooks focused on disciplines such as education, psychology, literature, politics, science, communications, biology, philosophy, and history.

The Futurist

This encyclopedia considers both the professional ethics of science and technology, and the social, ethical, and political issues raised by science and technology.

Business Week

Business for the Common Good

Acoustic Metamaterials

Acoustic metamaterials are of growing interest due to their ability to manipulate the propagation of acoustic waves in an extraordinary manner to benefit various applications, such as communications, biosensing, and medical diagnosis and therapy. Among various construction methods of acoustic metamaterials, artificially engineered elastic periodic structures, known as phononic crystals (PCs), are the strongest candidates since they exhibit complete phononic band gaps and negative refractions due to the periodicity of the structure. In this book, a new class of acoustic metamaterials-gradient-index phononic crystal (GRIN PC)-is introduced to overcome the limitations of regular PCs and further enrich the control over acoustic waves. GRIN PCs with different gradient profiles are designed to guide acoustic waves in extraordinary manners that are not shown in nature or regular PCs. A practical method for tuning the phononic band gaps of a PC is investigated. The concepts presented in this book serve as important foundations for the future development of acoustic devices.

State-of-the-Art Materials Science in Belgium 2017

This book is a printed edition of the Special Issue "State-of-the-Art Materials Science in Belgium 2017" that was published in Materials

Acoustic Metamaterials and Phononic Crystals

This comprehensive book presents all aspects of acoustic metamaterials and phononic crystals. The emphasis is on acoustic wave propagation phenomena at interfaces such as refraction, especially unusual refractive properties and negative refraction. A thorough discussion of the mechanisms leading to such refractive phenomena includes local resonances in metamaterials and scattering in phononic crystals.

Acoustic Metamaterials

About the book: This book is the first comprehensive review on acoustic metamaterials; novel materials which can manipulate sound waves in surprising ways, which include collimation, focusing, cloaking, sonic screening and extraordinary transmission. It covers both experimental and theoretical aspects of acoustic and elastic waves propagating in structured composites, with a focus on effective properties associated with negative refraction, lensing and cloaking. Most related books in the field address electromagnetic metamaterials and focus on numerical methods, and little (or no) experimental section. Each chapter will be authored by an acknowledged expert, amongst the topics covered will be experimental results on non-destructive imaging, cloaking by surface water waves, flexural waves in thin plates. Applications in medical ultrasound imaging and modeling of metamaterials will be emphasized too. The book can serve as a reference for researchers who wish to build a solid foundation of wave propagation in this class of novel materials.

Design Optimisation and Validation of Phononic Crystal Plates for Manipulation of Elastodynamic Guided Waves

This thesis proposes novel designs of phononic crystal plates (PhPs) allowing ultra-wide controllability frequency ranges of guided waves at low frequencies, with promising structural and tunability characteristics. It reports on topology optimization of bi-material-layered (1D) PhPs allowing maximized relative bandgap width (RBW) at target filling fractions and demonstrates multiscale functionality of gradient PhPs. It also introduces a multi-objective topology optimization method for 2D porous PhPs allowing both maximized RBW and in-plane stiffness and addresses the critical role of considering stiffness in designing porous PhPs. The multi-objective topology optimization method is then expanded for designing 2D porous PhPs with deformation induced tunability. A variety of innovative designs are introduced which their maximized broadband RBW is enhanced by, is degraded by or is insensitive to external finite deformation. Not only does this book address the challenges of new topology optimization methods for computational design of phononic crystals; yet, it demonstrated the suitability and applicability of the topological designs by experimental validation. Furthermore, it offers a comprehensive review of the existing optimization-based approaches for the design of finite non-periodic acoustic metamaterial structures, acoustic metamaterial lattice structures and acoustic metamaterials under perfect periodicity.

Acoustic Waves in Periodic Structures, Metamaterials, and Porous Media

This book delivers a comprehensive and up-to-date treatment of practical applications of metamaterials, structured media, and conventional porous materials. With increasing levels of urbanization, a growing demand for motorized transport, and inefficient urban planning, environmental noise exposure is rapidly becoming a pressing societal and health concern. Phononic and sonic crystals, acoustic metamaterials, and metasurfaces can revolutionize noise and vibration control and, in many cases, replace traditional porous materials for these applications. In this collection of contributed chapters, a group of international researchers reviews the essentials of acoustic wave propagation in metamaterials and porous absorbers with viscothermal losses, as well as the most recent advances in the design of acoustic metamaterial absorbers. The book features a detailed theoretical introduction describing commonly used modelling techniques such as plane wave expansion, multiple scattering theory, and the transfer matrix method. The following chapters give a detailed consideration of acoustic wave propagation in viscothermal fluids and porous media, and the extension of this theory to non-local models for fluid saturated metamaterials, along with a description of the relevant numerical methods. Finally, the book reviews a range of practical industrial applications, making it especially attractive as a white book targeted at the building, automotive, and aeronautic industries.

Design of Acoustic Artificial Structured Materials

Phononic crystals and acoustic metamaterials are artificial structured materials which provide a promising way to manipulate acoustic/elastic waves with many novel potential applications. After an introduction to the state of the art, the 2nd chapter designs actively controlled multilayers with piezoelectric resonant structures. The corresponding transmission and effective properties can be tuned by changing the electric boundary conditions of the piezoelectric materials. The 3rd chapter develops homogenization methods for phononic crystal plates and demonstrates for the first time the possibility of controlling simultaneously all the fundamental Lamb waves. The full control method developed here is applied to the design of various gradient index lenses that can exhibit several

functionalities such as wave focusing or wave beaming. The 4th chapter designs a new type of phononic crystal/metamaterial plate with hollow pillars that exhibits several new localized modes, such as whispering-gallery modes, inside both Bragg and low frequency band gaps. These modes can be actively tuned by filling the hollow parts with a liquid for which the height or the temperature is controlled. The 5th chapter proposes acoustic metasurface consisting of a single pillar or one line of pillars deposited on a thin plate. Local resonances of dipolar and monopolar symmetries can be characterized which are very sensitive to the pillar's geometric parameters. We study the amplitude and phase of the waves resulting from the scattering of an incident wave by the pillars and show that they can be described as dipolar or monopolar waves emitted by the pillar resonators as acoustic sources.

Acoustic Metamaterials and Phononic Crystals

This comprehensive book presents all aspects of acoustic metamaterials and phononic crystals. The emphasis is on acoustic wave propagation phenomena at interfaces such as refraction, especially unusual refractive properties and negative refraction. A thorough discussion of the mechanisms leading to such refractive phenomena includes local resonances in metamaterials and scattering in phononic crystals.

Dynamic Equivalent Modeling of Acoustic Metamaterials

This book derives physical models from basic principles, studies the effect of equivalent models on the dynamic characteristics of phononic crystals and acoustic metamaterials, and analyzes the physical mechanisms behind vibration and noise reduction. It first summarizes the research status of vibration and noise reduction, and research progress in phononic crystals and acoustic metamaterials. Based on this, one-dimensional periodic beam, two-dimensional thin plate with circular hole, and corresponding gradient structures are introduced, and their dynamic characteristics are discussed in detail. Therefore, different equivalent methods for different models are proposed through theoretical analysis, modal analysis and transmission rate analysis. Finally, a Helmholtz-type acoustic metamaterial, i.e. a multi-layer slotted tube acoustic metamaterial, is studied. Aiming at the low-frequency band gap of this model, a theoretical model for solving the inverse problem of acousto-electric analogue equivalent is proposed, and the effect of structural parameters on the low-frequency band gap is studied using this equivalent model. This book closely revolves around how to conduct equivalent research on artificially fabricated periodic structures. The methods and conclusions presented in this book provide a new theoretical basis for the application of artificial woven periodic structures in the field of low-frequency vibration reduction and noise reduction and are also an innovation in the discipline of vibration and noise control. This book is suitable for undergraduate students, graduate students and teachers in vibration and noise majors in universities, and can also provide references for engineering and technical personnel in related fields.

Fundamentals and Applications of Acoustic Metamaterials

In the last few decades, metamaterials have revolutionized the ways in which waves are controlled, and applied in physics and practical situations. The extraordinary properties of metamaterials, such as their locally resonant structure with deep subwavelength band gaps and their ranges of frequency where propagation is impossible, have opened the way to a host of applications that were previously unavailable. Acoustic metamaterials have been able to replace traditional treatments in several sectors, due to their better performance in targeted and tunable frequency ranges with strongly reduced dimensions. This is a training book composed of nine chapters written by experts in the field, giving a broad overview of acoustic metamaterials and their uses. The book is divided into three parts, covering the state-of-the-art, the fundamentals and the real-life applications of acoustic metamaterials.

High Frequency Acoustics in Colloid-Based Meso- and Nanostructures by Spontaneous Brillouin Light Scattering

This book deals with the exploration of phononic properties of meso- and nanostructured colloid-based composite materials at hypersonic (GHz) frequencies. It contains new research results in the emerging field of phononics.

Graded Elastic Metamaterials for Energy Harvesting

This book presents a complete framework for energy harvesting technologies based on graded elastic metamaterials. First, it provides a comprehensive survey of state-of-the-art research on metamaterials for energy harvesting and then explores the theoretical wave mechanics framework, going from inhomogeneous media to graded elastic metamaterials. The framework can be used to thoroughly analyse wave propagation phenomena in beams, plates, and half-spaces and to investigate the effect of local resonance on creating bandgaps or wave mode conversions. All these concepts converge together with piezoelectric materials in the study and design of piezo-augmented arrays of resonators. The energy harvesting performances of the graded metamaterials are then compared to conventional solutions, in order to quantify their advantages for applications.

New Acoustics Based on Metamaterials

This book highlights the acoustical metamaterials' capability to manipulate the direction of sound propagation in solids which in turn control the scattering, diffraction and refraction, the three basic mechanisms of sound propagation in solids. This gives rise to several novel theories and applications and hence the name new acoustics. As an introduction, the book mentions that symmetry of acoustic fields is the theoretical framework of acoustical metamaterials. This is then followed by describing that acoustical metamaterials began with locally resonant sonic materials which ushered in the concept of negative acoustic parameters such as mass density and bulk modulus. This complies with form invariance of the acoustic equation of motion which again exemplifies the symmetry property of acoustic fields.

Theory and Design of Acoustic Metamaterials

This book presents the most recent theoretical developments and numerical/experimental validations of new metamaterials and phononic crystals for the broadband absorption of elastic waves and vibrations in structures. These nine chapters explore many aspects of phononic crystals and acoustic/elastic metamaterials, including sound attenuation/absorption, extraordinary transmission, wave broadband mitigation, wave steering, cloaking via the transformation method, optimization of phononic crystals, and active acoustic metamaterials.

Manipulation of Sound Properties by Acoustic Metasurface and Metastructure

This thesis focuses on the manipulation of sound properties by artificial materials. It elaborates on the fundamental design of acoustic metasurfaces and metastructures as the extension of metamaterials, and their functionality in the manipulation of sound properties. A broad and comprehensive guideline of designing acoustic metasurfaces and metastructures is also provided. Based on the proposed sub-wavelength metasurfaces and the metastructures with a simplified layout, multiple potential applications are demonstrated. This thesis will appeal to acoustic engineers and researchers who are interested in designing acoustic artificial structures.

Theory and Design of Acoustic Metamaterials

This book presents the most recent theoretical developments and numerical/experimental validations of new metamaterials and phononic crystals for the broadband absorption of elastic waves and vibrations in structures. These nine chapters explore many aspects of phononic crystals and acoustic/elastic metamaterials, including sound attenuation/absorption, extraordinary transmission, wave broadband mitigation, wave steering, cloaking via the transformation method, optimization of phononic crystals, and active acoustic metamaterials.

IUTAM Symposium on Recent Advances of Acoustic Waves in Solids

Rapid growth of the mobile communication market has triggered extensive research on the bulk as well as surface acoustic wave devices in the last decade. Quite a few important results on the modeling and simulation of Film Bulk Acoustic Resonator (FBAR) and Layered SAW devices were reported recently. The other recent advance of acoustic waves in solids is the so-called phononic crystals or phononic band-gap materials. Analogous to the band-gap of light in photonic crystals, acoustic waves in periodic elastic structures also exhibit band-gap. Important applications of phononic band gap materials can potentially be found with creating a vibration free environment in microstructures, and design of advanced acoustic frequency filter, etc. In addition to the wave electronics and phononic crystals, to facilitate the emerging needs in the quantitative nondestructive evaluation of materials, waves in

anisotropic solids and/or electro-, magneto- interaction problems also regained much attention recently. Topics treated include: Waves in piezoelectric crystals; Simulation of advanced BAW and SAW devices; Analysis of band gaps in phononic structures; Experimental investigation of phononic structures; Waves in multilayered media; Waves in anisotropic solids and/or electro-, magneto- interaction problems.

Phononic Crystals

The theory of phononic crystals, i.e., artificial periodic structures that can alter the flow of acoustic waves, as well as numerical modelling techniques are presented in this volume. It contains a comprehensive set of tutorials on solving basic phononic crystal problems with finite element models (FEM), allowing the reader to generate band structures for 2D and 3D phononic crystals, to compute Bloch waves, waveguide, cavity modes, and more.

Gradient-Index Optics

This book provides a comprehensive and thorough treatment on fundamentals and applications of light propagation through inhomogeneous media. The authors present a description of the phenomena, components and technology used in GRIN Optics, and analyze various applications.

Gauge Invariance Approach to Acoustic Fields

This book highlights the symmetry properties of acoustic fields and describes the gauge invariance approach, which can be used to reveal those properties. Symmetry is the key theoretical framework of metamaterials, as has been demonstrated by the successful fabrication of acoustical metamaterials. The book first provides the necessary theoretical background, which includes the covariant derivative, the vector potential, and invariance in coordinate transformation. This is followed by descriptions of global gauge invariance (isotropy), and of local gauge invariance (anisotropy). Sections on time reversal symmetry, reflection invariance, and invariance of finite amplitude waves round out the coverage.

Acoustic Waves

The concept of acoustic wave is a pervasive one, which emerges in any type of medium, from solids to plasmas, at length and time scales ranging from sub-micrometric layers in microdevices to seismic waves in the Sun's interior. This book presents several aspects of the active research ongoing in this field. Theoretical efforts are leading to a deeper understanding of phenomena, also in complicated environments like the solar surface boundary. Acoustic waves are a flexible probe to investigate the properties of very different systems, from thin inorganic layers to ripening cheese to biological systems. Acoustic waves are also a tool to manipulate matter, from the delicate evaporation of biomolecules to be analysed, to the phase transitions induced by intense shock waves. And a whole class of widespread microdevices, including filters and sensors, is based on the behaviour of acoustic waves propagating in thin layers. The search for better performances is driving to new materials for these devices, and to more refined tools for their analysis.

Phononic Crystals

This book provides an in-depth analysis as well as an overview of phononic crystals. This book discusses numerous techniques for the analysis of phononic crystals and covers, among other material, sonic and ultrasonic structures, hypersonic planar structures and their characterization, and novel applications of phononic crystals. This is an ideal book for those working with micro and nanotechnology, MEMS (microelectromechanical systems), and acoustic devices. This book also: Presents an introduction to the fundamentals and properties of phononic crystals Covers simulation techniques for the analysis of phononic crystals Discusses sonic and ultrasonic, hypersonic and planar, and three-dimensional phononic crystal structures Illustrates how phononic crystal structures are being deployed in communication systems and sensing systems

Sound Topology, Duality, Coherence and Wave-Mixing

This book offers an essential introduction to the notions of sound wave topology, duality, coherence and wave-mixing, which constitute the emerging new science of sound. It includes general principles and specific examples that illuminate new non-conventional forms of sound (sound topology), unconventional quantum-like behavior of phonons (duality), radical linear and nonlinear phenomena associated with loss and its control (coherence), and exquisite effects that emerge from the interaction

of sound with other physical and biological waves (wave mixing). The book provides the reader with the foundations needed to master these complex notions through simple yet meaningful examples. General principles for unraveling and describing the topology of acoustic wave functions in the space of their Eigen values are presented. These principles are then applied to uncover intrinsic and extrinsic approaches to achieving non-conventional topologies by breaking the time reversal symmetry of acoustic waves. Symmetry breaking can impart topological immunity to wave degradation from imperfection scattering and catalyze controlled coherence. In the intrinsic case and the phonon representation of acoustic waves, the self-interaction/interference of a wave through its supporting medium exposes the notion of duality in the quantum statistics (i.e. boson vs. fermion characterized by the symmetry of multiple particle states) and how the quantum analogue behaviors of sound can be exploited in the form of novel sound-based information transfer and processing devices. By considering media that mix different types of waves, the book addresses the interaction of sound with other physical and biological waves but also brings to light examples of extrinsic processes that can lead to symmetry breaking. The coherent conversion of sound into other types of waves as well as the sound-induced non-conventional topology of elastic, electronic, spin and biological waves are presented in the case of media exhibiting elasto-electronic, photo-elastic, magneto-elastic effects and biological mechano-transduction.

Information Metamaterials

Metamaterials have attracted enormous interests from both physics and engineering communities in the past 20 years, owing to their powerful ability in manipulating electromagnetic waves. However, the functionalities of traditional metamaterials are fixed at the time of fabrication. To control the EM waves dynamically, active components are introduced to the meta-atoms, yielding active metamaterials. Recently, a special kind of active metamaterials, digital coding and programmable metamaterials, are proposed, which can achieve dynamically controllable functionalities using field programmable gate array (FPGA). Most importantly, the digital coding representations of metamaterials set up a bridge between the digital world and physical world, and allow metamaterials to process digital information directly, leading to information metamaterials. In this Element, we review the evolution of information metamaterials, mainly focusing on their basic concepts, design principles, fabrication techniques, experimental measurement and potential applications. Future developments of information metamaterials are also envisioned.

Functional Metamaterials and Metadevices

To meet the demands of students, scientists and engineers for a systematic reference source, this book introduces, comprehensively and in a single voice, research and development progress in emerging metamaterials and derived functional metadevices. Coverage includes electromagnetic, optical, acoustic, thermal, and mechanical metamaterials and related metadevices. Metamaterials are artificially engineered composites with designed properties beyond those attainable in nature and with applications in all aspects of materials science. From spatially tailored dielectrics to tunable, dynamic materials properties and unique nonlinear behavior, metamaterial systems have demonstrated tremendous flexibility and functionality in electromagnetic, optical, acoustic, thermal, and mechanical engineering. Furthermore, the field of metamaterials has been extended from the mere pursuit of various exotic properties towards the realization of practical devices, leading to the concepts of dynamically-reconfigurable metadevices and functional metasurfaces. The book explores the fundamental physics, design, and engineering aspects, as well as the full array of state-of-the-art applications to electronics, telecommunications, antennas, and energy harvesting. Future challenges and potential in regard to design, modeling and fabrication are also addressed.

Phononics

Phononics: Interface Transmission Tutorial Book Series provides an investigation of modern systems that includes a discrete matrix description. Classical continuous systems relying on the use of differential equations are recalled, showing that they generally have a specific limit on their corresponding modern matrix formulation. A detailed description of the mathematical languages that enables readers to find the composite system linear transmission properties is provided in the appendix. The physical model is described with exacting detail, and the bibliography is built to cite—in chronological order—all the scientists that have contributed over many years. Each volume is written with the aim of providing an up-to-date and concise summary of the present knowledge of interface transmission science, thus fostering the exchange of ideas among scientists interested in different aspects of interface

transmission. The book serves as an introduction to advanced graduate students, researchers, and scientists with little study on the subject, and is also useful to help keep specialists informed on general progress in the field. Offers a unique approach on phononics from the interfacial transmission point-of-view Teaches the modern physics of interface transmission, in particular, phononics through composite systems Authored and edited by world-leading experts on interface transmission

Propagation of Sound in Porous Media

This book has grown out of the research activities of the author in the fields of sound propagation in porous media and modelling of acoustic materials. It is assumed that the reader has a background of advanced calculus, including an introduction to differential equations, complex variables and matrix algebra. A prior exposure to theory of elasticity would be advantageous. Chapters 1-3 deal with sound propagation of plane waves in solids and fluids, and the topics of acoustic impedance and reflection coefficient are given a large emphasis. The topic of flow resistivity is presented in Chapter 2. Chapter 4 deals with sound propagation in porous materials having cylindrical pores. The topics of effective density, and of tortuosity, are presented. The thermal exchanges between the frame and the fluid, and the behaviour of the bulk modulus of the fluid, are described in this simple context. Chapter 5 is concerned with sound propagation in other porous materials, and the recent notions of characteristic dimensions, which describe thermal exchanges and the viscous forces at high frequencies, are introduced. In Chapter 6, the case of porous media having an elastic frame is considered in the context of Biot theory, where new topics described in Chapter 5 have been included.

Diffraction Optics and Nanophotonics

In this book the authors present several examples of techniques used to overcome the Abbe diffraction limit using flat and 3D diffractive optical elements, photonic crystal lenses, photonic jets, and surface plasmon diffractive optics. The structures discussed can be used in the microwave and THz range and also as scaled models for optical frequencies. Such nano-optical microlenses can be integrated, for example, into existing semiconductor heterostructure platforms for next-generation optoelectronic applications. Chapter 1 considers flat diffractive lenses and innovative 3D radiating structures including a conical millimeter-wave Fresnel zone plate (FZP) lens proposed for subwavelength focusing. In chapter 2 the subwavelength focusing properties of diffractive photonic crystal lenses are considered and it is shown that at least three different types of photonic crystal lens are possible. With the aim of achieving subwavelength focusing, in chapter 3 an alternative mechanism to produce photonic jets at Terahertz frequencies (terajets) using 3D dielectric particles of arbitrary size (cuboids) is considered. A scheme to create a 2D "teraknife" using dielectric rods is also discussed. In the final chapter the successful adaptation of free-space 3D binary phase-reversal conical FZPs for operation on surface plasmon-polariton (SPP) waves demonstrates that analogues of Fourier diffractive components can be developed for in-plane SPP 3D optics. Reviewing theory, modelling and experiment, this book will be a valuable resource for students and researchers working on nanophotonics and sub-wavelength focusing and imaging.

Phononic Crystals

Phononic crystals are artificial periodic structures that can alter efficiently the flow of sound, acoustic waves, or elastic waves. They were introduced about twenty years ago and have gained increasing interest since then, both because of their amazing physical properties and because of their potential applications. The topic of phononic crystals stands as the cross-road of physics (condensed matter physics, wave propagation in inhomogeneous and periodic media) and engineering (acoustics, ultrasonics, mechanical engineering, electrical engineering). Phononic crystals cover a wide range of scales, from meter-size periodic structures for sound in air to nanometer-size structures for information processing or thermal phonon control in integrated circuits. Phononic crystals have a definite relation with the topic of photonic crystals in optics. The marriage of phononic and photonic crystals also provides a promising structural basis for enhanced sound and light interaction. As the topic is getting popular, it is nowadays presented and discussed at various international conferences. After the first ten years during which the topic has remained mainly theoretical with a few proof-of-concept demonstrations in the literature, the evolution has been towards applications, instrumentation, and novel designs. The physical explanations for various effects are now well understood and efficient numerical methods and analysis tools have been developed. The book contains a comprehensive set of finite element model (FEM) scripts for solving basic phononic crystal problems. The scripts are short,

easy to read, and efficient, allowing the reader to generate for him(her)self band structures for 2D and 3D phononic crystals, to compute Bloch waves, waveguide and cavity modes, and more.

Elastic Waves in Solids I

Elastic waves possess some remarkable properties and have become ever more important to applications in fields such as telecommunications (signal processing), medicine (echography), and metallurgy (non-destructive testing). These volumes serve as a bridge between basic books on wave phenomena and more technically oriented books on specific applications of wave phenomena. The first volume studies the different mechanisms of propagation in isotropic and anisotropic media. The second volume describes the generation and applications of free and guided waves.

Nonlinearities in Periodic Structures and Metamaterials

Optical information processing of the future is associated with a new generation of compact nanoscale optical devices operating entirely with light. Moreover, adaptive features such as self-guiding, reconfiguration and switching become more and more important. Nonlinear devices offer an enormous potential for these applications. Consequently, innovative concepts for all-optical communication and information technologies based on nonlinear effects in photonic-crystal physics and nanoscale devices as metamaterials are of high interest. This book focuses on nonlinear optical phenomena in periodic media, such as photonic crystals, optically-induced, adaptive lattices, atomic lattices or metamaterials. The main purpose is to describe and overview new physical phenomena that result from the interplay between nonlinearities and structural periodicities and is a guide to actual and future developments for the expert reader in optical information processing, as well as in the physics of cold atoms in optical lattices.

Metamaterials and Their Applications

Artificial materials such as metamaterials are gaining interest in research area in recent years owing to their extraordinary properties as implied by the word "Meta" meaning "beyond" in Greek. These metamaterials constitute periodic or nonperiodic subwavelength macro cells which exhibit properties based on the design of the macro units resulting in special materials that do not exist in nature. Though the metamaterials have achieved significant breakthroughs in theory, application of these materials requires considerable progress. Some recent advances in terms of their application comprise of revolutionary electronics, filtering of sound and light, biosensors, absorbers of electromagnetic radiation, antennas with improved performance, invisible submarines etc. These metamaterials are classified into electromagnetic (EM), chiral, terahertz, photonic metamaterials, tunable metamaterials with the ability to modify the frequency of refractive index, frequency selective surfaces and nonlinear metamaterials. EMs are chiefly used for optical and microwave applications such as band-pass filters, lenses, microwave couplers, antenna radomes, etc. Some of the salient characteristics of these materials are their ability to control the direction of electromagnetic radiation, achieve enhanced bandwidth and radiated power and reduce the beam-width and return loss in contrast to the conventional antennas. As the field of metamaterials is interesting and has potential for next generation applications, in this book, a compilation of research articles and reviews showcasing the synthesis, properties, numerical models and the application of these metamaterials in various fields has been illustrated. Chapters 1-6 are compilation of research and invited articles manifesting the various synthesis routes of metamaterials with chapters 4-6 focusing on the theoretical models used for the fabrication of these materials while chapters 7-9 highlight the properties of the metamaterials. The final chapters 10-17 acquaint the reader with the numerous applications of the metamaterials such as lens, absorber materials, sensors, antennas, etc. Chapter 11 is a review on the theory and application of tunable metamaterials. As this book comprises of research articles ranging from synthesis to numerical modeling of metamaterials, it will appeal to audience with strong inclination towards physics, computer simulations, material science and electronics. Also as these metamaterials are important in many defense applications, the reader will find this book compelling to research extensively and adopt these materials into advanced technologies for the safety and progress of one's nation.

Optics and Nonlinear Optics of Liquid Crystals

This is a monograph/text devoted to a detailed treatment of the optical, electro-optical and nonlinear optical properties of all the mesophases of liquid crystals and related processes, phenomena and application principles. Quantitative data on material and optical parameters spanning the ultraviolet,

visible, infrared as well as the microwave regimes are presented along with detailed theoretical treatments of basic liquid crystal physics, material properties and nonlinear optics. Starting with a discussion on the basic building blocks of liquid crystalline molecules, the authors proceed to present in a pedagogical manner current theories, experiments, and applications of these unique and important optical properties of liquid crystals. Numerous tables of hard-to-find liquid crystalline parameters, a self-contained chapter on general nonlinear optics, and comprehensive literature review are also included.

An Introduction to Metamaterials and Waves in Composites

Requiring no advanced knowledge of wave propagation, *An Introduction to Metamaterials and Waves in Composites* focuses on theoretical aspects of metamaterials, periodic composites, and layered composites. The book gives novices a platform from which they can start exploring the subject in more detail. After introducing concepts related to elasticity, acoustics, and electrodynamics in media, the text presents plane wave solutions to the equations that describe elastic, acoustic, and electromagnetic waves. It examines the plane wave expansion of sources as well as scattering from curved interfaces, specifically spheres and cylinders. The author then covers electrodynamic, acoustic, and elastodynamic metamaterials. He also describes examples of transformations, aspects of acoustic cloaking, and applications of pentamode materials to acoustic cloaking. With a focus on periodic composites, the text uses the Bloch-Floquet theorem to find the effective behavior of composites in the quasistatic limit, presents the quasistatic equations of elastodynamic and electromagnetic waves, and investigates Brillouin zones and band gaps in periodic structures. The final chapter discusses wave propagation in smoothly varying layered media, anisotropic density of a periodic layered medium, and quasistatic homogenization of laminates. This book provides a launch pad for research into elastic and acoustic metamaterials. Many of the ideas presented have yet to be realized experimentally—the book encourages readers to explore these ideas and bring them to technological maturity.

Electromagnetic Metasurfaces

Discover a comprehensive exploration of recent developments and fundamental concepts in the applications of metasurfaces. In *Electromagnetic Metasurfaces: Theory and Applications*, distinguished researchers and authors Karim Achouri and Christophe Caloz deliver an introduction to the fundamentals and applications of metasurfaces and an insightful analysis of recent and future developments in the field. The book describes the precursors and history of metasurfaces before continuing on to an exploration of the physical insights that can be gleaned from the material parameters of the metasurface. You'll learn how to compute the fields scattered by a metasurface with known material parameters being illuminated by an arbitrary incident field, as well as how to realize a practical metasurface and relate its material parameters to its physical structures. The authors provide examples to illustrate all the concepts discussed in the book to improve and simplify reader understanding. *Electromagnetic Metasurfaces* concludes with an incisive discussion of the likely future directions and research opportunities in the field. Readers will also benefit from the inclusion of: A thorough introduction to metamaterials, the concept of metasurfaces, and metasurface precursors An exploration of electromagnetic modeling and theory, including metasurfaces as zero-thickness sheets and bianisotropic susceptibility tensors A practical discussion of susceptibility synthesis, including four-parameters synthesis, more than four-parameters synthesis, and the addition of susceptibility components A concise treatment of scattered-field analysis, including approximate analytical methods, and finite-difference frequency-domain techniques Perfect for researchers in metamaterial sciences and engineers working with microwave, THz, and optical technologies, *Electromagnetic Metasurfaces: Theory and Applications* will also earn a place in the libraries of graduate and undergraduate students in physics and electrical engineering.

Size-Dependent Continuum Mechanics Approaches

This book offers a comprehensive and timely report of size-dependent continuum mechanics approaches. Written by scientists with worldwide reputation and established expertise, it covers the most recent findings, advanced theoretical developments and computational techniques, as well as a range of applications, in the field of nonlocal continuum mechanics. Chapters are concerned with lattice-based nonlocal models, Eringen's nonlocal models, gradient theories of elasticity, strain- and stress-driven nonlocal models, and peridynamic theory, among other topics. This book provides researchers and practitioners with extensive and specialized information on cutting-edge theories and

methods, innovative solutions to current problems and a timely insight into the behavior of some advanced materials and structures. It also offers a useful reference guide to senior undergraduate and graduate students in mechanical engineering, materials science, and applied physics.

Dielectric Metamaterials

Dielectric Metamaterials: Fundamentals, Designs and Applications links fundamental Mie scattering theory with the latest dielectric metamaterial research, providing a valuable reference for new and experienced researchers in the field. The book begins with a historical, evolving overview of Mie scattering theory. Next, the authors describe how to apply Mie theory to analytically solve the scattering of electromagnetic waves by subwavelength particles. Later chapters focus on Mie resonator-based metamaterials, starting with microwaves where particles are much smaller than the free space wavelengths. In addition, several chapters focus on wave-front engineering using dielectric metasurfaces and the nonlinear optical effects, spontaneous emission manipulation, active devices, and 3D effective media using dielectric metamaterials. Highlights a crucial link in fundamental Mie scattering theory with the latest dielectric metamaterial research spanning materials, design and applications Includes coverage of wave-front engineering and 3D metamaterials Provides computational codes for calculating and simulating Mie resonances

Reciprocity in Elastodynamics

Important monograph by international authority who presents new methods/applications of a classical technique in elasticity.

Nonlinear Meta-Optics

This book addresses fabrication as well as characterization and modeling of semiconductor nanostructures in the optical regime, with a focus on nonlinear effects. The visible range as well as near and far infrared spectral region will be considered with a view to different envisaged applications. The book covers the current key challenges of the research in the area, including: exploiting new material platforms, fully extending the device operation into the nonlinear regime, adding re-configurability to the envisaged devices and proposing new modeling tools to help in conceiving new functionalities.

- Explores several topics in the field of semiconductor nonlinear nanophotonics, including fabrication, characterization and modeling of semiconductor nanostructures in the optical regime, with a focus on nonlinear effects
- Describes the research challenges in the field of optical metasurfaces in the nonlinear regime
- Reviews the use and achievements of all-dielectric nanoantennas for strengthening the nonlinear optical response
- Describes both theoretical and experimental aspects of photonic devices based on semiconductor optical nanoantennas and metasurfaces
- Gathers contributions from several leading groups in this research field to provide a thorough and complete overview of the current state of the art in the field of semiconductor nonlinear nanophotonics

Costantino De Angelis has been full professor of electromagnetic fields at the University of Brescia since 1998. He is an OSA Fellow and has been responsible for several university research contracts in the last 20 years within Europe, the United States, and Italy. His technical interests are in optical antennas and nanophotonics. He is the author of over 150 peer-reviewed scientific journal articles. Giuseppe Leo has been a full professor in physics at Paris Diderot University since 2004, and in charge of the nonlinear devices group of MPQ Laboratory since 2006. His research areas include nonlinear optics, micro- and nano-photonics, and optoelectronics, with a focus on AlGaAs platform. He has coordinated several research programs and coauthored 100 peer-reviewed journal articles, 200 conference papers, 10 book chapters and also has four patents. Dragomir Neshev is a professor in physics and the leader of the experimental photonics group in the Nonlinear Physics Centre at Australian National University (ANU). His activities span over several branches of optics, including nonlinear periodic structures, singular optics, plasmonics, and photonic metamaterials. He has coauthored 200 publications in international peer-reviewed scientific journals.

The Theory of Composites

The theory of composite materials is the study of partial differential equations with rapid oscillations in their coefficients. Although extensively studied for more than a hundred years, an explosion of ideas in the past four decades has dramatically increased our understanding of the relationship among the properties of the constituent materials, the underlying microstructure of a composite, and the overall effective moduli that govern the macroscopic behavior. This renaissance has been fueled

by the technological need for improving our knowledge base of composites, by the advance of the underlying mathematical theory of homogenization, by the discovery of new variational principles, by the recognition of how important the subject is to solving structural optimization problems, and by the realization of the connection with the mathematical problem of quasiconvexification. This book surveys these exciting developments at the frontier of mathematics and presents many new results.

[The Energy Evolution Harnessing Free Energy From Nature Schauberger 39 S Eco Technology](#)

Water, Energy, and Life: The Legacy of Viktor Schauberger - Water, Energy, and Life: The Legacy of Viktor Schauberger by Ascension Tools 6,637 views 11 months ago 5 minutes - In this video, we explore the life and work of Viktor **Schauberger**, an Austrian forester, inventor, and water expert who devoted his ...

Viktor Schauberger's Water Science: Can Diamagnetism and Vortex Motion Lift and Propel Large Masses? - Viktor Schauberger's Water Science: Can Diamagnetism and Vortex Motion Lift and Propel Large Masses? by gsutton78 20,082 views 2 years ago 38 minutes - Summary: Viktor **Schauberger**, (30 June 1885 to 25 September 1958) was an Austrian forester, environmentalist, and inventor who ...

The Whirlpool

Victor Schauberger

Hydrodynamic Levitation via the Power of the Vortex

Magnetic Propulsion

Superconductivity

Tribal Electricity

Summary

Viktor Schauberger: Secrets Of Water - Viktor Schauberger: Secrets Of Water by Literati 8,736 views 11 months ago 15 minutes - Viktor **Schauberger**, was an Austrian forester who was active during the first half of the 19:th century. He had a huge beard and a ...

[5/5] Viktor Schauberger ~ Comprehend & Copy Nature ~ - [5/5] Viktor Schauberger ~ Comprehend & Copy Nature ~ by jow69 201,139 views 12 years ago 15 minutes - The first movie about the work and legacy of Viktor **Schauberger**,. A comprehensive study of historical facts, current research, and ...

Vortex Energy - Vortex Energy by Unilux 9,389 views 5 years ago 3 minutes - Check vortexenergy.nl. The need for **energy**, is increasing But we are running out fo resources fast We need to create an ...

Viktor Schauberger Vortex Energy Experiments, Implosion Generator & Walter Russell - Viktor Schauberger Vortex Energy Experiments, Implosion Generator & Walter Russell by RealDIYEnergy 65,915 views 13 years ago 1 minute, 55 seconds - <http://RealDiyEnergy.com> Real Do it Yourself **Energy**,.

Schauberger Repulsine - We need 3D Cad Designer for free energy flying machine - Schauberger Repulsine - We need 3D Cad Designer for free energy flying machine by Tor Segelohrenbob 70,696 views 1 year ago 35 minutes - The first test run of the Repulsine can now be started. It has already become a beautiful UFO lamp.\nSo far, the first ...

Begrüßung

Tag des Probelaufes

Probelauf Teil 1

Probelauf Teil 2

Probelauf Teil 4

Probelauf Teil 5

Warum kein Drehzahlmesser?

Die optimale Wellenform

Der Tornadotorcade

Die Geburt des Wassers

Probelauf

Zusammenfassung

Vortex lift! (a vortex lifting a heavy metal disc) - Vortex lift! (a vortex lifting a heavy metal disc) by Giesbert Nijhuis 273,986 views 11 years ago 3 minutes, 17 seconds - This vortex machine produces a vortex that can lift up to 3.5kg, enough to lift a heavy metal disc! Do note though that the whole ...

IT'S TIME TO SELL OUR PROPERTY - IT'S TIME TO SELL OUR PROPERTY by The Indie Projects 38,289 views 10 hours ago 27 minutes - Get a 30% discount on Foreo UFO 3 at <https://foreo.se/72ys>, with an additional 10% off to the first 50 people who use my code ...

Viktor Schauberger - Bio Plough - Viktor Schauberger - Bio Plough by Mantra *[\[vara\(M\\$M0 6W50s129,62](#)

9 years ago 1 minute, 29 seconds - Viktor **Schauberger**, developed a special plow for loosening the soil which turned the soil inwards sent repeatedly rather than ...

Viktor Schauburger: "Water Wizard" The Nikola Tesla of water and his secret source of inspiration. -

Viktor Schauburger: "Water Wizard" The Nikola Tesla of water and his secret source of inspiration.

by Ian 277,883 views 7 years ago 2 minutes, 23 seconds - Viktor **Schauberger**, was to water what Nicoli Tesla was to **electricity**,. He was a recognized genius known as the "water wizard".

Who is Viktor schauburger?

70 - COMO FAZER A REFORMA ÍNTIMA ? - 70 - COMO FAZER A REFORMA ÍNTIMA ? by Louise Castanhedo 1,281 views 17 hours ago 22 minutes - Louise dá dicas de como fazermos nossa reforma íntima. Assista ao vídeo e fique sabendo de tudo! PARA COMPRAR O 2º ...

Blue Energy - Ocean Power (Piston Pump & Racks) - Blue Energy - Ocean Power (Piston Pump & Racks) by Lam Teng Choy Henry 2,122,670 views 11 years ago 4 minutes, 58 seconds - Blue **Energy**, -- Ocean Power (Piston Pump & Racks) Fluid Pumping Apparatuses Powered By Waves Or Flowing Currents A new ...

Fundamental Mechanical Devices

Air Piston Pump

Air & Water Piston Pump Air flow

Design B2-Actuator Bar Piston Pump

Design B3 - Chain Piston Pump

Oscillate Pontoon & Piston Pump

Oscillate Pontoon, Paddle & Piston Pump

Oscillate Actuator T Bar & Piston Pump

Design D2 - Vertical Rotary Wheel & Piston Pump

Axial Flow Turbine & Piston Pump

How It Works: Wave Energy - How It Works: Wave Energy by OurFuture.Energy 277,589 views 4 years ago 1 minute, 1 second - Although water covers most of our planet's surface, **energy**, from waves is a largely untapped resource. Learn how wave power ...

Ocean Energy - Wave Power Station - Ocean Energy - Wave Power Station by Ideas for the Green Planet 7,575,990 views 14 years ago 2 minutes, 44 seconds - The functionality of the wave power station developed by Voith Hydro (www.voith.com). Animation produced by the company ...

What is the principle of wave energy plant?

Sacred Living Geometry of Viktor Schauburger - Sacred Living Geometry of Viktor Schauburger by Argos.VU 24,729 views 3 years ago 2 hours, 45 minutes - The Enlightened Environmental Theories of Viktor **Schauberger**,.

Nature was my Teacher : Viktor Schauburger on Water H2O Vortex <Free Implosion Energy Tom Brown =>Nature was my Teacher : Viktor Schauburger on Water H2O Vortex <Free Implosion Energy Tom Brown =>by Truth Awakens 9 views 1 month ago 41 minutes - This is Tom Brown 's, fascinating video documentary **Nature**, Was My Teacher - The Vision of Viktor **Schauberger**, which vividly ...

This Wave Energy Generator Harness the Ocean's Energy to Electricity - This Wave Energy Generator Harness the Ocean's Energy to Electricity by innotutorial 1,656 views 1 year ago 3 minutes, 44 seconds - The ocean is a powerful and untapped source of renewable **energy**,, and wave **energy**, generators are at the forefront of ...

[4/4] The Extraordinary Nature of Water (Viktor Schauburger) - [4/4] The Extraordinary Nature of Water (Viktor Schauburger) by jow69 9,005 views 12 years ago 14 minutes, 55 seconds - The Extraordinary **Nature**, of Water (Viktor **Schauberger**,) You will be guided through forests, rivers, and the global water cycle, ...

The Secrets of Water, Comprehend and Copy Nature The Documentary of Viktor Schauburger Full Length. - The Secrets of Water, Comprehend and Copy Nature The Documentary of Viktor Schauburger Full Length. by Truth Awakens 25 views 1 month ago 2 hours, 5 minutes - Born in 1885 as the son of an Austrian forest superintendents (Chiefs Of the Forest), Viktor **Schauberger**, `s, guiding principle for ...

Wave Energy: Harnessing the Ocean's Power - Science Nation - Wave Energy: Harnessing the Ocean's Power - Science Nation by National Science Foundation News 26,969 views 12 years ago 2 minutes, 27 seconds - Harnessing energy, from the waves of the world's oceans seems like the ultimate in renewable fuel. Yet research lags 15-20 years ...

The Vortex - The Vortex by UN Environment Programme 2,324 views 14 years ago 2 minutes, 37 seconds - An innovative water purification system saves **energy**,, eliminates the use of harmful chemicals and could generate 250000 jobs ...

Water Vortex Generator - Water Vortex Generator by Okki Moeljadi 17,284 views 5 years ago 8

minutes, 28 seconds - Disk shape is important to get maximum length of vortex. We have tried many different shapes and this one gives the best result.

Water Myths, Water Energy, and the Hidden History on Water - Water Myths, Water Energy, and the Hidden History on Water by Cultivate Elevate 13,874 views 1 year ago 43 minutes - In this episode, we welcome back Matt Roeske, founder of CultivateElevate, as he reveals the hidden secrets of water and how it ...

Harnessing Energy from Ocean Waves - Harnessing Energy from Ocean Waves by University of California Television (UCTV) 12,291 views 8 years ago 11 minutes, 50 seconds - Visit: <http://www.uctv.tv/>)

Berkeley Lab scientist Marcus Lehmann, a member of the Lab's Cyclotron Road cohort, discusses his ...

Wave Power Density is 30 times higher than Solar

3 Advantages of Wave Energy

Wave Power - An Underutilized Power Source

Innovative Wave Power Absorption Inspired by Nature

Video Mud Vibration

New Wave Energy Converter by Pro Reza Alam

2013 Proof of Concept Prototype

Visualization of Dynamic Pressure Carpet

CalWave in Action - Generating Gley

Harnessing the Wind - The Future of Renewable Energy (4 Minutes) - Harnessing the Wind - The Future of Renewable Energy (4 Minutes) by BioTech Whisperer 29 views 7 days ago 3 minutes, 41 seconds - Welcome to the world of wind **energy**,, where the power of **nature**, is **harnessed**, to create a sustainable and clean future.

Spirit Science 15 ~ The Cycle of Synthesis - Spirit Science 15 ~ The Cycle of Synthesis by Spirit Science 12,349 views 1 day ago 13 minutes, 14 seconds - Take your life into a whole new dimension with the Seven-Day Transformation Deluxe! Learn More and Sign Up Here: ...

Harnessing energy for more than a century - Harnessing energy for more than a century by Hydro 2,249 views 3 years ago 1 minute, 37 seconds - With more than a century of experience in renewable **energy**,, Hydro is one of the top three operators of power production in ...

Intro

We know energy

Our future

Humanising Energy: Testing the waters of new energy technology - Humanising Energy: Testing the waters of new energy technology by World Energy Council 280 views 2 years ago 3 minutes, 59 seconds - Floating foundations for the future. Risk management company DNV is tapping into the potential of offshore wind farms to source ...

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Report Of The Interstate Commerce Commission On Block Signal Systems And Appliances For The Automatic Control Of Railway Trains

Automatic Block Signalling - Automatic Block Signalling by Track Railway 38,490 views 8 years ago 2 minutes, 8 seconds - ... more to overall safety and **train control**, than **automatic block signalling**, and the track circuit the **block system**, of **signalling**, divides ...

How We Keep Trains from Crashing | Signalling & ETCS 101 - How We Keep Trains from Crashing | Signalling & ETCS 101 by RMTransit 37,698 views 1 year ago 9 minutes, 53 seconds - As always, leave a comment down below if you have ideas for our future videos. Like, subscribe, and hit the bell icon so you won't ...

How do Automatic Block Signals work? | Axle counter | Block and Interlocking system - How do Automatic Block Signals work? | Axle counter | Block and Interlocking system by Let's Grow Up 173,551 views 1 month ago 4 minutes, 31 seconds - The **Signaling System**, of **Railway**,, **railway automatic signal**,, track circuits, axle counter, **signal**, and track circuit, **automatic signal**,, ...

Railway/Train Signalling System: Communication Based Train Control (CBTC) | LS ELECTRIC - Railway/Train Signalling System: Communication Based Train Control (CBTC) | LS ELECTRIC by

LS ELECTRIC Europe B.V. 47,096 views 3 years ago 4 minutes, 39 seconds - Watch how our CBTC **system**, differs from the conventional **systems**, out there LS ELECTRIC advanced **train control**, technology ...

Train-Tech SS Sensor Signals - Completely Automatic Signalling - For DC and DCC! - Train-Tech SS Sensor Signals - Completely Automatic Signalling - For DC and DCC! by Train-Tech 38,894 views 7 years ago 2 minutes, 17 seconds - Train,-tech have just launched Sensor **Signals**, - completely **automatic**, colour light **signals**, with everything including the sensor built ...

Completely self-contained automatic signals.

As the train passes they work together automatically

You can link lots of signals together - all using just one wire

Each changing in sequence as they work together

Sensor signals work on both Digital DCC & Analogue DC (DC needs 2 power wires)

UK railway signalling | The basics! - UK railway signalling | The basics! by Reliant Railways 11,297 views 2 years ago 3 minutes, 52 seconds - Hope you enjoyed the video don't forget to subscribe!

How do British **Railway**, Semaphore and colour light **signals**, work?

How RAILWAY SIGNALLING Evolved from Flags to 4G Network - How RAILWAY SIGNALLING Evolved from Flags to 4G Network by Railways Explained 638,816 views 3 years ago 12 minutes, 51 seconds - **Railways**, Explained aims to establish community of all **railway**, workers, experts and lovers, worldwide, by creating regular, ...

Introduction

Time Interval System

Mechanical Signals

Conclusion

Easy Block Signalling That Just Works! Train Tech Automatic Signals Review and Fitting Guide - Easy Block Signalling That Just Works! Train Tech Automatic Signals Review and Fitting Guide by Jennifer E. Kirk Model Railways 17,776 views 1 year ago 36 minutes - These new **Train**, Tech **automatic signals**, make **block signalling**, so easy and they just work, right out of the package. Today Jenny ...

Full Set of Printed Manual

Detailing Pack

Chapter 6 | Section 1 | Introduction to Railway Signaling - Chapter 6 | Section 1 | Introduction to Railway Signaling by Feras University 1,264 views 3 years ago 13 minutes - In this video you will learn the following aspects:- 1- **Railway Signaling**, as a **System**, 2- **Signaling Block**, 3- **Signaling Systems**, and ...

Introduction

Contents

Overview

Train Control

Signaling Block

Types of Signaling

Automatic Train Operation

Summary

Automated Colour Light Signals on a Budget - Automated Colour Light Signals on a Budget by Station Road Model Railway 55,602 views 3 years ago 22 minutes - In this video I look at a cost effective option for establishing **automated signals**, on a layout without the need for isolation **blocks**, or ...

Winter Studio

Automated Signals Intro

The Gear

The Demonstration

A Big Thank You

Rail traffic in Serbia - A Switchman, old signal box, track junction and chainways - Station Šebeši - Rail traffic in Serbia - A Switchman, old signal box, track junction and chainways - Station Šebeši by dulevoz 2,678,833 views 1 year ago 25 minutes - Old **signaling**, and safety **railway**, station box device looks like the history, dating from a century ago, but it is still in use. There is ...

Model Railroad Signals Made Simple Part 1 - Model Railroad Signals Made Simple Part 1 by Model Trains 38,330 views 3 years ago 12 minutes, 9 seconds - I recently started installing the Atlas **signal system**, so in this two-part series we start by looking at three different types of **signal**, ...

Intro

Signal Types

Signal Systems

Block Animator

Atlas

Block Detector

Power

Signals & Signalmen - Part 1 'In The Beginning' - Signals & Signalmen - Part 1 'In The Beginning' by Mid Hants Railway 'The Watercress Line' 54,664 views 3 years ago 12 minutes, 28 seconds - For those of you who have ever wondered what actually happens in the **signal**, boxes and **signalling**, centres around the county.

Time Interval Working

Brass Indicators

Interlocking

Mechanical Interlocking

How Do You Tell Where Your Train Is

Track Circuitry

Electronic Interlocking

Totley Signalbox (The Final Shift) - Totley Signalbox (The Final Shift) by IRSE Minor Railways Section 3,764 views 2 days ago 5 minutes, 56 seconds - 15/03/24 was the last day of Totley signalboxes operation, having spanned a lifetime of operations from its inception in 1893 ...

Signals #1 Basic wiring 3 aspect (no junctions) - Signals #1 Basic wiring 3 aspect (no junctions) by Wallsrail 79,037 views 2 years ago 11 minutes, 2 seconds - 4 aspect and junction **signals**, require, in the words of my mate Brian, wires with blobs on!! And therefore fall outside the scope of ...

Single Pole Switch

Double Pole Switch

Basic Control Panel

Recap

32. Block Detection on McKinley Railway. - 32. Block Detection on McKinley Railway. by McKinley Railway 97,240 views 4 years ago 12 minutes, 51 seconds - This video has been re-uploaded due to audio and playback errors. Here we explain how **Block**, Detection works on McKinley and ...

Introduction

Train Control

Miniature Layout

How it works

What makes it work

Unintended obstruction

How it works - St Albans Signal Box - How it works - St Albans Signal Box by St Albans Signal Box 65,701 views 3 years ago 13 minutes, 9 seconds - From the volunteers at St Albans **Signal**, Box here is a description of what the **signal**, box levers, instruments and indicators do.

Lever Frame

Yellow Levers

Mechanical Interlocking

Demonstration

Tail Lamp

Model Railway Signals at Chadwick Model Railway | 104. - Model Railway Signals at Chadwick Model Railway | 104. by Chadwick Model Railway 70,965 views 3 years ago 27 minutes - Model **railway signal**, choice, lights or semaphore, at Chadwick model **railway**.. Patreon Link.

Introduction

Block Detection

Double O Scale

Light Signals

Automatic Signals

Dual Homed

Example

Computer Control

Gantry

NEW PRODUCT - HO Scale Motorized Railroad Gate Crossing from Model Train Technology. - NEW PRODUCT - HO Scale Motorized Railroad Gate Crossing from Model Train Technology. by Model Train Technology 37,762 views 9 months ago 39 minutes - This is a HO Scale motorized **railroad**, crossing gate you can install in a matter of minutes!! No complicated wiring, mechanicals or ...

What is ATP (Automatic Train Protection) - An Overview - What is ATP (Automatic Train Protection) -

An Overview by Urban Transport News 37,302 views 4 years ago 1 minute, 47 seconds - Automatic train, protection (ATP) is a type of **train**, protection **system**, which continually checks that the speed of a **train**, is compatible ...

Railroad 101: Signaling Systems - Railroad 101: Signaling Systems by Federal Railroad Administration 108,685 views 8 years ago 38 minutes - Is an ABS **signal**, that is correct the distant **signal**, is part of the **automatic block signal system**, the distant **signal**, is the last **automatic**, ...

What is CBTC? - What is CBTC? by mtainfo 80,218 views 7 years ago 2 minutes, 12 seconds - Communications-Based **Train Control**, is bringing greater capacity and improved safety to the New York City Subway.

Railroad Signaling Explained: How A Signal System Works at a Control Point - Railroad Signaling Explained: How A Signal System Works at a Control Point by Mark Clay McGowan 49,311 views 4 years ago 13 minutes, 34 seconds - Another of the Forbidden Videos. This is the first in a series of how different parts of the **signal system**, work and what they do.

Central Processing Unit

Battery Chargers

Track Interface Panels

Railway signal and track circuit - Railway signal and track circuit by Anders Gill 26,402 views 5 years ago 32 seconds - A low voltage from a battery is applied to one of the running rails in the **block**, and returned via the other. A relay at the entrance to ...

How Railway Signalling Systems Work : Digital Axle Counter (3D Animation) - How Railway Signalling Systems Work : Digital Axle Counter (3D Animation) by HowTechnologyWorks3D 34,264 views 6 years ago 23 minutes - Automatic, gain **control**,. And it has SSD AC reset circuit with voltage and timing window function. This card shows the following ...

Railway Signaling Systems Insights Post Coromandel Express Accident - Railway Signaling Systems Insights Post Coromandel Express Accident by Let's Grow Up 1,117,046 views 9 months ago 6 minutes, 54 seconds - railway signaling system,, how does **railway signaling system**, works, **signaling system**,, after Coromandel express **train**, accident ...

CBTC 101: CBTC Concepts, Standards and Architectures - CBTC 101: CBTC Concepts, Standards and Architectures by Naeem Ali 17,912 views 5 years ago 1 hour, 16 minutes - After 140 years of using a fixed **block signalling**, philosophy, CBTC has turned the **signalling**, industry on its head by introducing ...

Intro

Objective

Professional Bio

What is CBTC?

IEEE Characteristic #3

Two Signalling Philosophies

Traditional Fixed Block Signalling Basic Concept

Moving Block Signaling Basic Concept

Differing Philosophies

Automatic Train Protection (ATP)

ATP Functions

Automatic Train Operation (ATO)

ATO Functions

Automatic Train Supervision (ATS)

ATS Functions

CBTC Building Blocks

CBTC Architectures

No CBI Based

Train Centric

CBTC Standards

IEEE 1474.1

How CBTC Works - How CBTC Works by Rail System Net 95,786 views 9 years ago 5 minutes, 13 seconds - Communications-Based **Train Control**, (CBTC) is a **railway signaling system**, that makes use of the telecommunications between ...

SIGNALS 101: 10 Levels of Train Signal Understanding - SIGNALS 101: 10 Levels of Train Signal Understanding by Hyce 188,757 views 1 year ago 50 minutes - In this installment of the **Railroad**, 101 series, we look at **Railroad Signal**, Design! We go over 10 different levels of understanding of ...

Intro

L1: Signal Types; History
L2: Signal Aspects & Indications
L3: Local Traffic Control
L4: Centralized Traffic Control
Recap 1-4
L5: Automatic Train Stop
L6: Track Circuits
L7: Signal Bungalows
L8: Vitality, Signal Circuit Design
L9: Relay Logic Madness
L9: part 2: Get the green signal
Recap 5-9
L10: Microprocessor control
Outro

Indian Railway Automatic Signalling System | How Automatic Signalling Works | Mr.Educator - Indian Railway Automatic Signalling System | How Automatic Signalling Works | Mr.Educator by Mr.Educator
731 views 1 year ago 2 minutes, 44 seconds - Automatic block signaling, (ABS), spelled **automatic block signalling**, or called track circuit **block**, (TCB[1]) in the UK, is a **railroad**, ...

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The Tech Contracts Handbook

The Tech Contracts Handbook is a practical and accessible reference book and training manual on IT contracts. This is a clause-by-clause "how to" guide on software licenses and technology services agreements, covering the issues at stake and offering negotiation tips and sample contract language. This handbook is written for both lawyers and businesspeople, including contract managers, procurement officers, corporate counsel, salespeople, and anyone else responsible for getting IT deals done. Perhaps most important, this book uses simple English, as any good contract should. Topics covered include: · Software as a service (SaaS) and cloud computing agreements · Warranties · Indemnities · Open source software · Service level agreements · Nondisclosure agreements · Limitations of liability · Internet and e-commerce contracts · Software escrow · Data security · Copyright licensing · And much more

The Tech Contracts Handbook

"This book will help you negotiate, draft, and understand information technology contracts"--

The Tech Contracts Handbook

"This book will help you negotiate, draft, and understand information technology contracts"--

The Tech Contracts Handbook

A simple 58-page guide to indemnity terms, from the author of ABA's bestseller, The Tech Contracts Handbook. Avoid the misunderstandings, mistakes, and delays common to indemnities in software licenses and cloud computing agreements. This practical e-book is ideal for both lawyers and businesspeople. It's accessible, clear, and precise, like a good contract.

The Tech Indemnities Pocket Guide

A Hands-On Guide for Contracting in the Cloud Stephen Guth's latest book zeros in on the high-stakes negotiations of Software as a Service procurements. Covering topics from audit rights to data privacy to service levels, the Contract Negotiation Handbook: Software as a Service dissects a cloud computing contract line-by-line with easy to understand explanations, preparing you to successfully counter service provider negotiation ploys. Based on years of real-life experience, the practical negotiation tactics

described in this how-to book could save you money on your next cloud computing procurement and protect you from taking on unnecessary risk. Whether you're an attorney, a procurement professional, or just looking to get the best possible deal, this book has something for you. Don't negotiate your next cloud computing contract without it!

Contract Negotiation Handbook

Even leading organizations with sophisticated IT infrastructures and teams of lawyers can find themselves unprepared to deal with the range of issues that can arise in IT contracting. Written by two seasoned attorneys, *A Guide to IT Contracting: Checklists, Tools, and Techniques* distills the most critical business and legal lessons learned through the authors' decades of experience drafting and negotiating IT-related agreements. In a single volume, readers can quickly access information on virtually every type of technology agreement. Structured to focus on a particular type of IT agreement, each chapter includes a checklist of essential terms, a brief summary of what the agreement is intended to do, and a complete review of the legal and business issues that are addressed in that particular agreement. Providing non-legal professionals with the tools to address IT contracting issues, the book: Contains checklists to help readers organize key concepts for ready reference Supplies references to helpful online resources and aids for contract drafting Includes downloadable resources with reusable checklists and complete glossary that defines key legal, business, and technical terms Costly mistakes can be avoided, risk can be averted, and better contracts can be drafted if you have access to the right information. Filled with reader-friendly checklists, this accessible reference will set you down that path. Warning you of the most common pitfalls, it arms you with little-known tips and best practices to help you negotiate the key terms of your IT agreements with confidence and ensure you come out on top in your next contract negotiation.

A Guide to IT Contracting

This book is a user manual for understanding and deployment of open source software licensing in business. Written for lawyers and businesspeople alike, it explains and analyzes open source licensing issues, and gives practical suggestions on how to deal with open source licensing in a business context. Including useful forms, information, and both technical and licensing background, this book will help you avoid legal pitfalls and educate your organization about the risks of open source.

The Open Source Alternative

Your lack of focus on Procurement is limiting your profits. Multiply them by making Procurement a company-wide priority. *Profit from Procurement: Add 30% to Your Bottom Line by Breaking Down Silos* delivers an insightful, compelling, and fresh take on a subject that typically comprises 50% of a business's total costs: Procurement. Alex Klein, Simon Watson and Jose Oliveira, leaders at the world's largest dedicated Procurement consultancy, highlight the limitations of the traditional, functionally siloed approach to Procurement, and demonstrate how significant EBITDA gains can be made by lifting Procurement out of the back office and enabling it to fundamentally reset a company's cost base. Its accessible, frank, and refreshing style, combined with practical, actionable advice, based on the authors' extensive real-life experience, make it a must read for any executive looking to make an impact through Procurement. The book offers readers a practical and concrete roadmap to optimizing, integrating, and deploying a company's Procurement capabilities, creating a less siloed, more impactful function. Readers will learn how to: Plan their company's Procurement transformation Reskill teams for the coming change Reposition the Procurement function to become the driver of cross-functional change Integrate new topics such as digitalization and sustainability into their Procurement roadmaps Ensure that Procurement efficiencies are fully reflected in bottom-line profits Perfect for C-Suite executives and Procurement professionals at companies of all sizes, *Profit from Procurement* belongs on the bookshelves of every employee and leader tasked with company operations and profit strategy.

Profit from Procurement

Presents the critical elements of technology procurement, explaining the vital links between technology, finance, strategic sourcing and programme management.

The Technology Procurement Handbook

Building on innovative research undertaken by the 'Cloud Legal Project' at Queen Mary, University of London, this work analyses the key legal and regulatory issues relevant to cloud computing under European and English law.

Cloud Computing Law

Practical Tips on How to Contract is a collection of 91 insightful tips for lawyers and professionals who want to improve how they draft and negotiate contracts. In each tip, Laura shares what she learned over her career at top law firms and technology companies. Her approachable writing style and practical explanations make these tips easy to understand and implement. This book can benefit everyone, whether they are new to contracts or have been working with them for years. Topics include advising clients, assignment, buying and selling goods, confidentiality and NDAs, contract structure and formation, damages, definitions, disputes, drafting, governing law, indemnification, intellectual property, negotiation, price and payment, purchase orders, risk, termination, title and risk of loss, training, working with contracts, and other inspiration.

Technology Licensing

"I have studied Rosen's book in detail and am impressed with its scope and content. I strongly recommend it to anybody interested in the current controversies surrounding open source licensing." --John Terpstra, Samba.org; cofounder, Samba-Team "Linux and open source software have forever altered the computing landscape. The important conversations no longer revolve around the technology but rather the business and legal issues. Rosen's book is must reading for anyone using or providing open source solutions." --Stuart Open Source Development Labs A Complete Guide to the Law of Open Source for Developers, Managers, and Lawyers Now that open source software is blossoming around the world, it is crucial to understand how open source licenses work--and their solid legal foundations. Open Source Initiative general counsel Lawrence Rosen presents a plain-English guide to open source law for developers, managers, users, and lawyers. Rosen clearly explains the intellectual property laws that support open source licensing, carefully reviews today's leading licenses, and helps you make the best choices for your project or organization. Coverage includes: Explanation of why the SCO litigation and other attacks won't derail open source Dispelling the myths of open source licensing Intellectual property law for nonlawyers: ownership and licensing of copyrights, patents, and trademarks "Academic licenses" BSD, MIT, Apache, and beyond The "reciprocal bargain" at the heart of the GPL Alternative licenses: Mozilla, CPL, OSL and AFL Benefits of open source, and the obligations and risks facing businesses that deploy open source software Choosing the right license: considering business models, product architecture, IP ownership, license compatibility issues, relicensing, and more Enforcing the terms and conditions of open source licenses Shared source, eventual source, and other alternative models to open source Protecting yourself against lawsuits

Practical Tips on How to Contract

Information technology affects all aspects of modern life. From the information shared on social media such as Facebook, Twitter, and Instagram to online shopping and mobile devices, it is rare that a person is not touched by some form of IT every day. Information Technology Law examines the legal dimensions of these everyday interactions with technology and the impact on privacy and data protection, as well as their relationship to other areas of substantive law, including intellectual property and criminal proceedings. Focusing primarily on developments within the UK and EU, this book provides a broad-ranging introduction and analysis of the increasingly complex relationship between the law and IT. Information Technology Law is essential reading for students of IT law and also appropriate for business and management students, as well as IT and legal professionals. Online resources The accompanying online resources include a catalogue of web links to key readings and updates to the law since publication.

Open Source Licensing

"Aimed at a global market so not oriented to any particular legal system, the book is useful to readers throughout the world"--

Information Technology Law

Information Technology Law takes a unique socio-legal approach to examining the interaction between the law and other elements of the information society. Murray discusses relevant issues such as governance, free expression, and crime with enthusiasm, and looks forward to future challenges presented by developing technologies.

International Construction Contract Law

This updated 7th edition examines fundamental issues that both vendors and customers may confront in the negotiation of a software license and a cloud computing agreement, including related issues such as software development, professional services, maintenance and support. Included are four new chapters and 41 new forms, checklists, and policies. The cloud computing chapter has been expanded.

Information Technology Law

Contract drafting is different from the other types of writing that a new lawyer is faced with. Law school contracts classes rarely consider the issues that arise in sophisticated commercial transactions. A new lawyer is therefore forced to learn by doing and observing -- in high-pressure 'on the job' training. Now there is help. *Working with Contracts: What Law School Doesn't Teach You* provides the beginning lawyer with an operative understanding of the vocabulary and the building blocks of contracts. It introduces the basic elements of all contracts; describes the lawyer's role in the drafting and negotiating process; discusses amendments, waivers, and consents; and addresses issues that arise in reviewing contracts, including due diligence issues. It also offers sample provisions, drafting checklists, and an expansive glossary of contract language and basic transactional practice.

The Practical Guide to Software Licensing and Cloud Computing

There is a broad consensus amongst law firms and in-house legal departments that next generation "Legal Tech" – particularly in the form of Blockchain-based technologies and Smart Contracts – will have a profound impact on the future operations of all legal service providers. Legal Tech startups are already revolutionizing the legal industry by increasing the speed and efficiency of traditional legal services or replacing them altogether with new technologies. This on-going process of disruption within the legal profession offers significant opportunities for all business. However, it also poses a number of challenges for practitioners, trade associations, technology vendors, and regulators who often struggle to keep up with the technologies, resulting in a widening regulatory "gap." Many uncertainties remain regarding the scope, direction, and effects of these new technologies and their integration with existing practices and legacy systems. Adding to the challenges is the growing need for easy-to-use contracting solutions, on the one hand, and for protecting the users of such solutions, on the other. To respond to the challenges and to provide better legal communications, systems, and services Legal Tech scholars and practitioners have found allies in the emerging field of Legal Design. This collection brings together leading scholars and practitioners working on these issues from diverse jurisdictions. The aim is to introduce Blockchain and Smart Contract technologies, and to examine their on-going impact on the legal profession, business and regulators.

Working with Contracts

Drafting and Negotiating Commercial Contracts, Fourth Edition is the 'one-stop-shop' for practical contractual matters, making it essential reading for anyone involved in negotiating and drafting commercial contracts. This book includes:- A guide to the common legal issues in negotiating and drafting contracts- An explanation of the structure and content of a commercial contract- Good and bad practice in drafting (and in using clear, modern English)- The meaning and use of commonly-used words, phrases and legal jargon- The formalities for creating and signing contracts- Guidance on the interpretation of contracts- Steps to take, and what to check for in a contract to eliminate errors (including lists of what to check for in different situations)- Practical measures to protect documents from unwanted alteration, to remove metadata and sensitive information and to secure documents- Drafting and legal issues when contracting with consumers. The Fourth Edition has been fully updated to take account of important court decisions regarding the interpretation of contracts and changes in consumer legislation. *Drafting and Negotiating Commercial Contracts, Fourth Edition* is for everyone who wishes to understand, or has to negotiate or draft, a commercial contract. This includes commercial lawyers, contract managers, in-house lawyers, lawyers in private practice, LPC course tutors and law and business students.

Contract Drafting and Negotiation for Entrepreneurs and Business Professionals

The Complete Guide to Software as a Service is truly "everything you need to know about SaaS." This is the only book available today that covers the multiple facets of the SaaS model: functional, operational, technical, security and financial. Starting with the definition and the origins of SaaS, it gives a 360-degree view of the inner workings of a SaaS business. This book is a must read for entrepreneurs who are launching a SaaS company. Learn the six ways to fail your SaaS start-up. It will also guide any software company who is transitioning from an on-premise license model to SaaS. Learn what IT and business functions must evolve when moving from one business model to the next. It also provides useful information and insight to different functional managers within a SaaS company. As well, users of SaaS software will become more knowledgeable clients of their SaaS providers after reading this book. Learn how to "read between the lines" of your SaaS contract and focus on the clauses where you have real negotiating power. For anyone interested in learning more about this important shift in the software industry, this book fills a void that exists today in the world of SaaS.

Legal Tech, Smart Contracts and Blockchain

Many businesses around the world use technology as a means to set-up, run and improve their commercial performance but not all countries have sufficient access to technology. In fact the 'digital divide' between rich and poor countries is one of the major international challenges facing our society. Technology Business Incubation describes a concept whereby technological support and services are offered to start-up companies in the fields of engineering, science and technology to help them further their own research and develop viable businesses. Aimed at developed and developing countries this concept could provide a solution in bridging the knowledge gap. Written by Rustam Lalkaka, a well-known expert in the field, the toolkit provides invaluable information for carrying out feasibility studies; preparing business plans; choosing a location; finding sponsors; selecting managers and tenants; and monitoring a technology business incubator. Annexes contain checklists and report pro formas to help prepare relevant documents based on local needs

Drafting and Negotiating Commercial Contracts

This book is an essential resource for lawyers who work with clients and business transactions in the software licensing arena. It is written in practical, easy-to-understand language, and written from the perspective of both the licensor and the licensee. A CD-ROM is included and filled with numerous customizable and easy-to-use forms and agreements.

The Complete Guide to Software As a Service

Law Express: Contract Law is designed to help you to relate all the reading and study throughout your course specifically to exam and assignment situations. Understand quickly what is required, organise your revision, and learn the key points with ease, to get the grades you need. Tested with examiners and students.

Open Source for Business

"This book addresses practical application of intellectual property principles to drafting and negotiating intellectual property transactions, intended to be used by practicing lawyers for use in their practices in addition to being used as a textbook for a law school course"--

Technology Business Incubation

A less-expensive grayscale paperback version is available. Search for ISBN 9781680923018. Business Law I Essentials is a brief introductory textbook designed to meet the scope and sequence requirements of courses on Business Law or the Legal Environment of Business. The concepts are presented in a streamlined manner, and cover the key concepts necessary to establish a strong foundation in the subject. The textbook follows a traditional approach to the study of business law. Each chapter contains learning objectives, explanatory narrative and concepts, references for further reading, and end-of-chapter questions. Business Law I Essentials may need to be supplemented with additional content, cases, or related materials, and is offered as a foundational resource that focuses on the baseline concepts, issues, and approaches.

A Practical Guide to Software Licensing for Licensees and Licensors

An eagerly anticipated second edition of this established and highly regarded text teaches the key practice skill of contract drafting, with emphasis on how to incorporate the business deal into the contract and add value to the client's deal. Features: More exercises throughout the book, incorporating More precedents for use in exercises Exercises designed to teach students how to read and analyze a contract progressively more difficult and sophisticated New, multi-draft exercises involving a variety of business contracts New and refreshed examples, including Examples of well-drafted boilerplate provisions More detailed examples of proper way to use shall Multiple well-drafted contracts with annotations Revised Aircraft Purchase Agreement exercise to focus on key issues, along with precedents on how to draft the action sections and the endgame sections. Expanded explanations of endgame provisions, along with examples and new exercises

Complying with the telemarketing sales rule

A middle grade fantasy novel that teaches history and science -- for kids and teachers.

Contract Law

This Handbook intends to inform Data Providers and researchers on how to provide privacy-protected access to, handle, and analyze administrative data, and to link them with existing resources, such as a database of data use agreements (DUA) and templates. Available publicly, the Handbook will provide guidance on data access requirements and procedures, data privacy, data security, property rights, regulations for public data use, data architecture, data use and storage, cost structure and recovery, ethics and privacy-protection, making data accessible for research, and dissemination for restricted access use. The knowledge base will serve as a resource for all researchers looking to work with administrative data and for Data Providers looking to make such data available.

Drafting and Negotiating Intellectual Property Transactions

Need help with contract clauses, but only got a few minutes?An alphabetical, quick-access guide to all you need to know: The purpose and effect of common clauses, explaining the relevance of each, with illustrative examples.Now covers:The meaning of:'Breach"Substantial' and 'material' in clauses for termination'Beyond reasonable control' in force majeure casesWhen a priority of terms clause will operateWhether rules applying to penalties also apply to depositsThe legal effectiveness of 'no amendment' or 'no variation' clausesLegal frameworks and how the courts will view such clauses during a disputeNew legislation such as the Consumer Rights Act 2015, the General Data Protection Regulations 2016 and the Trade Secrets Directive Also includes:A step-by-step commentaryExamples of best practice in different situationsDetailed notes on each type of boilerplate clauseA summary of relevant law, including statutory definitions and case lawPrecedents available as electronic downloads

Business Law I Essentials

'I'm a HUGE fan of Alison Green's "Ask a Manager" column. This book is even better' Robert Sutton, author of The No Asshole Rule and The Asshole Survival Guide 'Ask A Manager is the book I wish I'd had in my desk drawer when I was starting out (or even, let's be honest, fifteen years in)' - Sarah Knight, New York Times bestselling author of The Life-Changing Magic of Not Giving a F*ck A witty, practical guide to navigating 200 difficult professional conversations Ten years as a workplace advice columnist has taught Alison Green that people avoid awkward conversations in the office because they don't know what to say. Thankfully, Alison does. In this incredibly helpful book, she takes on the tough discussions you may need to have during your career. You'll learn what to say when: · colleagues push their work on you - then take credit for it · you accidentally trash-talk someone in an email and hit 'reply all' · you're being micromanaged - or not being managed at all · your boss seems unhappy with your work · you got too drunk at the Christmas party With sharp, sage advice and candid letters from real-life readers, Ask a Manager will help you successfully navigate the stormy seas of office life.

Drafting Contracts

This volume is for students and scholars of intellectual property law, practitioners seeking creative arguments from across the field, and policymakers searching for solutions to changing social and technological issues. The book explores the tensions between two fundamentally competing demands made of IP law.

Secrets of Hominea

This book provides a comprehensive look at the challenges of keeping up with liquidity needs and technology advancements. It is also a sourcebook for understandable, practical solutions on trading and technology.

Handbook on Using Administrative Data for Research and Evidence-based Policy

Professionalism is arguably more important in some occupations than in others. It is vital in some because of the life and death decisions that must be made, for example in medicine. In others the rapidly changing nature of the occupation makes efficient regulation difficult and so the professional behaviour of the practitioners is central to the good functioning of that occupation. The core idea behind this book is that Information and Communication Technology (ICT) is changing so quickly that professional behaviour of its practitioners is vital because regulation will always lag behind.

A-Z Guide to Boilerplate and Commercial Clauses

Ask a Manager

Radio Frequency Controlled Circuit Home Appliance Project

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Amazon RFID Writer/Reader

Amp Mod (Increase Reading Distance)

Coil Mod (Increase Reading Distance)

Verdict

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