

Resilience Assessment And Evaluation Of Computing Systems

A Balance Between Ideals and Reality - Establishing and Evaluating a Resilient City Indicator System for Central Chinese Cities Building Community Resilience to Disasters True Resilience The New World of Health Promotion Proceedings of the Fourth Resilience Engineering Symposium Disaster Resilience of Education Systems Advances in Physical Ergonomics and Safety Down the Rabbit Hole of Leadership Computational Methods, Seismic Protection, Hybrid Testing and Resilience in Earthquake Engineering Building and Measuring Community Resilience Tools for Strengths-Based Assessment and Evaluation Resilience Assessment and Evaluation of Computing Systems Critical Infrastructure System Security and Resiliency Sustainable and Resilient Critical Infrastructure Systems Resilience Thinking in Urban Planning Resilience Assessing and Promoting Resilience in Vulnerable Children: The school years Resilience-Oriented Urban Planning Fostering Resilience Principles of Ecosystem Stewardship Structural Resilience in Sewer Reconstruction Resilience and Aging Urban Disaster Resilience and Security Promoting Psychological Resilience in the U.S. Military Building Resilience in Students Impacted by Adverse Childhood Experiences Resilience and Urban Risk Management Resilience Education 2016-2017 Evaluation of the Regional Resilience Assessment Program and the Virtual Risk Analysis Cell Onward Disaster

ResilienceHandbook of Social Work Practice with Vulnerable and Resilient PopulationsSafety and Reliability - Safe Societies in a Changing WorldResilience Assessment and Evaluation of Computing SystemsA Ready and Resilient Workforce for the Department of Homeland SecurityResilience and RiskResilience of Critical Infrastructure SystemsResilience in Children, Adolescents, and AdultsUrban ResilienceHandbook of Resilience in ChildrenResilience Begins with Beliefs

A Balance Between Ideals and Reality - Establishing and Evaluating a Resilient City Indicator System for Central Chinese Cities

The resilience of computing systems includes their dependability as well as their fault tolerance and security. It defines the ability of a computing system to perform properly in the presence of various kinds of disturbances and to recover from any service degradation. These properties are immensely important in a world where many aspects of our daily life depend on the correct, reliable and secure operation of often large-scale distributed computing systems. Wolter and her co-editors grouped the 20 chapters from leading researchers into seven parts: an introduction and motivating examples, modeling techniques, model-driven prediction, measurement and metrics, testing techniques, case studies, and conclusions. The core is formed by 12 technical papers, which are framed by motivating real-world

examples and case studies, thus illustrating the necessity and the application of the presented methods. While the technical chapters are independent of each other and can be read in any order, the reader will benefit more from the case studies if he or she reads them together with the related techniques. The papers combine topics like modeling, benchmarking, testing, performance evaluation, and dependability, and aim at academic and industrial researchers in these areas as well as graduate students and lecturers in related fields. In this volume, they will find a comprehensive overview of the state of the art in a field of continuously growing practical importance.

Building Community Resilience to Disasters

Many programs are available to increase psychological resilience among service members and families, but little is known about their effectiveness. This report reviews existing programs to identify evidence-informed factors for promoting resilience.

True Resilience

This guide identifies the characteristics of resilient learning communities, revisits schools from the first edition, and offers case studies, sample questionnaires,

strategies, and tools for self-evaluation.

The New World of Health Promotion

Today's children face a multitude of pressures, from the everyday challenges of life to the increasing threats of poverty, exploitation, and trauma. Central to growing up successfully is learning to deal with stress, endure hardships, and thrive despite adversity. Resilience – the ability to cope with and overcome life's difficulties – is a quality that can potentially be nurtured in all young people. The second edition of the Handbook of Resilience in Children updates and expands on its original focus of resilience in children who overcome adversity to include its development in those not considered at risk, leading to better outcomes for all children across the lifespan. Expert contributors examine resilience in relation to environmental stressors, as a phenomenon in child and adolescent disorders, and as a means toward positive adaptation into adulthood. New and revised chapters explore strategies for developing resilience in the family, the therapist's office, and the school as well as its nurturance in caregivers and teachers. Topics addressed include: Resilience in maltreated children and adults. Resilience and self-control impairment. Relational resilience in young and adolescent girls. Asset-building as an essential component of treatment. Assessment of social and emotional competencies related to resilience. Building resilience through school bullying prevention programs. Large-scale longitudinal studies on resilience. The second

edition of the Handbook of Resilience in Children is a must-have reference for researchers, clinicians, allied practitioners and professionals, and graduate students in school and clinical psychology, education, pediatrics, psychiatry, social work, school counseling, and public health.

Proceedings of the Fourth Resilience Engineering Symposium

Provides a roadmap for federal, state, and local leaders who are developing plans to enhance community resilience for health security threats and describes options for building community resilience in key areas.

Disaster Resilience of Education Systems

Based on recent research, this book discusses physical ergonomics, which is concerned with human anatomical, anthropometric, physiological and biomechanical characteristics as they relate to physical activity. Topics include working postures, materials handling, repetitive movements, work-related musculoskeletal disorders, workplace layout, safety, and health.

Advances in Physical Ergonomics and Safety

Health Behavior, Education, & Promotion

Down the Rabbit Hole of Leadership

There is consensus in literature that urban areas have become increasingly vulnerable to the outcomes of economic restructuring under the neoliberal political economic ideology. The increased frequency and widening diversity of problems offer evidence that the socio-economic and spatial policies, planning and practices introduced under the neoliberal agenda can no longer be sustained. As this shortfall was becoming more evident among urban policymakers, planners, and researchers in different parts of the world, a group of discontent researchers began searching for new approaches to addressing the increasing vulnerabilities of urban systems in the wake of growing socio-economic and ecological problems. This book is the joint effort of those who have long felt that contemporary planning systems and policies are inadequate in preparing cities for the future in an increasingly neoliberalising world. It argues that “resilience thinking” can form the basis of an alternative approach to planning. Drawing upon case studies from five cities in Europe, namely Lisbon, Porto, Istanbul, Stockholm, and Rotterdam, the book makes an exploration of the resilience perspective, raising a number of theoretical debates, and suggesting a new methodological approach based on empirical evidence. This book provides insights for intellectuals exploring alternative perspectives and principles of a new planning approach.

Computational Methods, Seismic Protection, Hybrid Testing and Resilience in Earthquake Engineering

Sustainable and resilient critical infrastructure systems is an emerging paradigm in an evolving era of depleting assets in the midst of natural and man-made threats to provide a sustainable and high quality of life with optimized resources from social, economic, societal and environmental considerations. The increasing complexity and interconnectedness of civil and other interdependent infrastructure systems (electric power, energy, cyber-infrastructures, etc.) require inter- and multidisciplinary expertise required to engineer, monitor, and sustain these distributed large-scale complex adaptive infrastructure systems. This edited book is motivated by recent advances in simulation, modeling, sensing, communications/information, and intelligent and sustainable technologies that have resulted in the development of sophisticated methodologies and instruments to design, characterize, optimize, and evaluate critical infrastructure systems, their resilience, and their condition and the factors that cause their deterioration. Specific topics discussed in this book include, but are not limited to: optimal infrastructure investment allocation for sustainability, framework for manifestation of tacit critical infrastructure knowledge, interdependencies between energy and transportation systems for national long term planning, intelligent transportation infrastructure technologies, emergent research issues in infrastructure

interdependence research, framework for assessing the resilience of infrastructure and economic systems, maintenance optimization for heterogeneous infrastructure systems, optimal emergency infrastructure inspection scheduling, and sustainable rehabilitation of deteriorated transportation infrastructure systems.

Building and Measuring Community Resilience

With rapid urbanization in developing countries and the emergence of smart systems and integrated intelligent devices, the new generation of infrastructure will be smarter and more efficient. However, due to natural and anthropomorphic hazards, as well as the adverse impact of climate change, civil infrastructure systems are increasingly vulnerable. Therefore, future-proofing and designing resilience into infrastructure is one of the biggest challenges facing the industry and governments in all developing and industrialized societies. This book provides a comprehensive overview of infrastructure resiliency, new developments in this emerging field and its scopes, including ecology and sustainability, and the challenges involved in building more resilient civil infrastructure systems. Moreover, it introduces a strategic roadmap for effective and efficient methods needed for modeling, designing, and assessing resiliency. Features: Includes contributions from internationally recognized scholars in the emerging field of infrastructure resilience. Covers a broad range of topics in infrastructure resilience such as disaster assessment, civil infrastructure and lifeline systems, natural

hazard mitigation, and seismic protection. Includes practical global case studies and leading-edge research from several countries. Presents an interdisciplinary approach in addressing the challenges in the emerging field of infrastructure resilience. *Resilience of Critical Infrastructure Systems: Emerging Developments and Future Challenges* serves as a valuable resource for practicing professionals, researchers, and advanced students seeking practical, forward-looking guidance.

Tools for Strengths-Based Assessment and Evaluation

This book is on urban resilience – how to design and operate cities that can withstand major threats such as natural disasters and economic downturns and how to recover from them. It is a collection of latest research results from two separate but collaborating research groups, namely, researchers in urban design and those on general resilience theory. The book systematically deals with the core aspects of urban resilience: systems, management issues and populations. The taxonomy can be broken down into threats, systems, resilience cycles and recovery types in the context of urban resilience. It starts with a discussion of systems resilience models, focusing on the central idea that resilience is a moving average of costs (a set of trajectories in a two-player game paradigm). The second section explores management issues, including planning, operating and emergency response in cities with specific examples such as land-use planning and carbon-neutral scenarios for urban planning. The next section focuses on urban

dwellers and specific people-related issues in the context of resilience. Agent-based simulation of behaviour and perception-based resilience, as well as brand crisis management are representative examples of the topics discussed. A further section examines systems like public utilities – including managing power supplies, cyber-security issues and models for pandemics. It concludes with a discussion of the future challenges and risks facing complex systems, for example in resilient power grids, making it essential reading for a wide range of researchers and policymakers.

Resilience Assessment and Evaluation of Computing Systems

Education is regarded as a cross-cutting issue for disaster risk reduction (DRR) through reviewing the Sendai Framework for DRR (SFDRR) 2015–2030. Mainstreaming Disaster Risk Reduction (DRR) in the education sector is one of the important efforts to enhance resilience in a community. DRR in the education sector not only focuses on provision of disaster education, but also includes securing a safe school environment, developing school disaster management plans, and building the capacity of school teachers and local educational officers. Japan, with its wealth of experience in DRR, has developed a good resilient system in its education sector, which has been tested and revised through experiences of past disasters. This book reviews the evolution of DRR in the education sector in Japan, including some of the recent developments after the 2011 Great East Japan

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Earthquake, focusing on DRR governance and practices in national policies, curriculum development and teacher training, community linkage, and international cooperation, to enhance resilience in the education sector. The primary target groups for this book are students and researchers in the fields of disaster management and DRR studies. Another target group comprises practitioners and policy makers, who will be able to apply the collective knowledge from this work to policy and decision making. The book provides an overview of the current research trends and furnishes basic knowledge on this important topic.

Critical Infrastructure System Security and Resiliency

This report presents the results of the Public Safety Canada (PS) 2016-2017 Evaluation of the Regional Resilience Assessment Program (RRAP) and the Virtual Risk Analysis Cell (VRAC), which were introduced as part of a package of initiatives announced under the 2011 Canada-U.S. Beyond the Border Action Plan. While the original focus of the Action Plan was on enhancing cross-border security and the legitimate flow of people, goods and services, the primary focus of this evaluation was on PS' domestic RRAP and VRAC efforts over the past five years, from 2011-2012 (program inception) to 2016-2017.

Sustainable and Resilient Critical Infrastructure Systems

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Helping practitioners in their work with vulnerable children of a school-going age, this workbook explores ways of nurturing resilience in different aspects of everyday life. Focusing on specific areas such as home life, talents and interests, the authors show how to make thorough assessments and intervene in constructive ways.

Resilience Thinking in Urban Planning

When aging adults struggle with social isolation, financial instability, or the difficult work of caring for a spouse with a chronic illness, their levels of stress can be enormous. But many older adults are living longer and are trying to make the best of their later years despite being more vulnerable to stress. In *Resilience and Aging*, renowned geriatric psychiatrist Dr. Helen Lavretsky explains how enhanced resilience—“which involves positively adapting to adversity in a way that maintains a person’s biological and psychological equilibrium”—can counter that vulnerability. She describes how care, practice, and research all can be redirected toward emphasizing the positive aspects of aging and prevention. Lavretsky summarizes the most up-to-date research on resilience, neurobiology, and preventive care. She also describes novel interventions—including yoga, tai chi, meditation, and allopathic techniques—that can help older adults improve their cognition and quality of life. Finally, she explores relevant clinical cases from her practice. Designed for geriatric practitioners, researchers, and family caregivers,

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this practical book offers critical information on measuring resilience, the role of spirituality in reducing stress, and incorporating resilience-building procedures into clinical practice or everyday life. Throughout, the book's revolutionary integrative approach aims to amplify personal happiness by allowing aging adults to remain healthy and active while simultaneously reducing the cost of chronic disease to families and society.

Resilience

Recent years have seen a gradual shift in focus of international policies from a national and regional perspective to that of cities, a shift which is closely related to the rapid urbanization of developing countries. As revealed in the 2011 Revision of the World Urbanization Prospects published by the United Nations, 51% of the global population (approximately 3.6 billion people) lives in cities. The report predicts that by 2050, the world's urban population will increase by 2.3 billion, making up 68% of the population. The growth of urbanization in the next few decades is expected to primarily come from developing countries, one third of which will be in China and India. With rapid urbanization and the ongoing growth of mega cities, cities must become increasingly resilient and intelligent to cope with numerous challenges and crises like droughts and floods arising from extreme climate, destruction brought by severe natural disasters, and aggregated social contradictions resulting from economic crises. All cities face the urban

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development dynamics and uncertainties arising from these problems. Under such circumstances, cities are considered the critical path from crisis to prosperity, so scholars and organizations have proposed the construction of "resilient cities." On the one hand, this theory emphasizes cities' defenses and buffering capacity against disasters, crises and uncertainties, as well as recovery after destruction; on the other hand, it highlights the learning capacity of urban systems, identification of opportunities amid challenges, and maintenance of development vitality. Some scholars even believe that urban resilience is a powerful supplement to sustainable development. Hence, resilience assessment has become the latest and most important perspective for evaluating the development and crisis defense capacity of cities. Rather than a general abstract concept, urban resilience is a comprehensive measurement of a city's level of development. The dynamic development of problems is reflected through quantitative indicators and appraisal systems not only from the perspective of academic research, but also governmental policy, so as to scientifically guide development, and measure and compare cities' development levels. Although international scholars have proposed quantitative methods for urban resilience assessment, they are however insufficiently systematic and regionally adaptive for China's current urban development needs. On the basis of comparative study on European and North American resilient city theories, therefore, this paper puts forwards a theoretical framework for resilient city systems consistent with China's national conditions in light of economic development pressure, natural resource depletion, pollution, and

other salient development crises in China. The key factors influencing urban resilience are taken into full consideration; expert appraisal is conducted based on the Delphi Method and the analytic hierarchy process (AHP) to design an extensible and updatable resilient city evaluation system which is sufficiently systematic, geographically adaptable, and sustainable for China's current urban development needs. Finally, Changsha is taken as the main case for empirical study on comprehensive evaluation of similar cities in Central China to improve the indicator system.

Assessing and Promoting Resilience in Vulnerable Children: The school years

This volume addresses the challenges associated with methodology and application of risk and resilience science and practice to address emerging threats in environmental, cyber, infrastructure and other domains. The book utilizes the collective expertise of scholars and experts in industry, government and academia in the new and emerging field of resilience in order to provide a more comprehensive and universal understanding of how resilience methodology can be applied in various disciplines and applications. This book advocates for a systems-driven view of resilience in applications ranging from cyber security to ecology to social action, and addresses resilience-based management in infrastructure, cyber,

social domains and methodology and tools. Risk and Resilience has been written to open up a transparent dialog on resilience management for scientists and practitioners in all relevant academic disciplines and can be used as supplement in teaching risk assessment and management courses.

Resilience-Oriented Urban Planning

Safety and Reliability – Safe Societies in a Changing World collects the papers presented at the 28th European Safety and Reliability Conference, ESREL 2018 in Trondheim, Norway, June 17-21, 2018. The contributions cover a wide range of methodologies and application areas for safety and reliability that contribute to safe societies in a changing world. These methodologies and applications include: - foundations of risk and reliability assessment and management - mathematical methods in reliability and safety - risk assessment - risk management - system reliability - uncertainty analysis - digitalization and big data - prognostics and system health management - occupational safety - accident and incident modeling - maintenance modeling and applications - simulation for safety and reliability analysis - dynamic risk and barrier management - organizational factors and safety culture - human factors and human reliability - resilience engineering - structural reliability - natural hazards - security - economic analysis in risk management
Safety and Reliability – Safe Societies in a Changing World will be invaluable to academics and professionals working in a wide range of industrial and

governmental sectors: offshore oil and gas, nuclear engineering, aeronautics and aerospace, marine transport and engineering, railways, road transport, automotive engineering, civil engineering, critical infrastructures, electrical and electronic engineering, energy production and distribution, environmental engineering, information technology and telecommunications, insurance and finance, manufacturing, marine transport, mechanical engineering, security and protection, and policy making.

Fostering Resilience

The frequency and severity of disasters over the last few decades have presented unprecedented challenges for communities across the United States. In 2005, Hurricane Katrina exposed the complexity and breadth of a deadly combination of existing community stressors, aging infrastructure, and a powerful natural hazard. In many ways, the devastation of Hurricane Katrina was a turning point for understanding and managing disasters, as well as related plan making and policy formulation. It brought the phrase "community resilience" into the lexicon of disaster management. Building and Measuring Community Resilience: Actions for Communities and the Gulf Research Program summarizes the existing portfolio of relevant or related resilience measurement efforts and notes gaps and challenges associated with them. It describes how some communities build and measure resilience and offers four key actions that communities could take to build and

measure their resilience in order to address gaps identified in current community resilience measurement efforts. This report also provides recommendations to the Gulf Research Program to build and measure resilience in the Gulf of Mexico region.

Principles of Ecosystem Stewardship

This edited book investigates the interrelations of disaster impacts, resilience and security in an urban context. Urban as a term captures megacities, cities, and generally, human settlements, that are characterised by concentration of quantifiable and non-quantifiable subjects, objects and value attributions to them. The scope is to narrow down resilience from an all-encompassing concept to applied ways of scientifically attempting to ,measure' this type of disaster related resilience. 28 chapters in this book reflect opportunities and doubts of the disaster risk science community regarding this ,measurability'. Therefore, examples utilising both quantitative and qualitative approaches are juxtaposed. This book concentrates on features that are distinct characteristics of resilience, how they can be measured and in what sense they are different to vulnerability and risk parameters. Case studies in 11 countries either use a hypothetical pre-event estimation of resilience or are addressing a 'revealed resilience' evident and documented after an event. Such information can be helpful to identify benchmarks or margins of impact magnitudes and related recovery times, volumes

and qualities of affected populations and infrastructure.

Structural Resilience in Sewer Reconstruction

In *Resilience: The Science of Adaptation to Climate Change* leading experts analyze and question ongoing adaptation interventions. Contributions span different disciplinary perspectives, from law to engineering, and cover different regions from Africa to the Pacific. Chapters assess the need for adaptation, highlighting climate change impacts such as sea level rise, increases in temperature, changing hydrological variability, and threats to food security. The book then discusses the state of global legislation and means of tracking progress. It reviews ways to build resilience in a range of contexts— from the Arctic, to small island states, to urban areas, across food and energy systems. Critical tools for adaptation planning are highlighted - from social capital and ethics, to decision support systems, to innovative finance and risk transfer mechanisms. Controversies related to geoengineering and migration are also discussed. This book is an indispensable resource for scientists, practitioners, and policy makers working in climate change adaptation, sustainable development, ecosystem management, and urban planning. Provides a summary of tools and methods used in adaptation including recent innovations Includes chapters from a diverse range of authors from academic institutions, humanitarian organizations, and the United Nations Evaluates adaptation options, highlighting gaps in knowledge where

further research or new tools are needed

Resilience and Aging

As adults working in schools, educators' beliefs translate into messages, actions, and behaviors that can enhance or impede student success. This book affirms why beliefs are so important and why it is imperative to spend time focusing on, reflecting upon, and affecting educators' beliefs—especially about students' resilience. The author draws from her extensive experience in research, policy, and practice to present a wealth of information, strategies, and tools to help educators transfer current resilience theory and research into practice. Unfortunately, being an educator is not always publically supported, financially rewarded, or highly valued. Responding to these circumstances, *Resilience Begins with Beliefs* is an effective resource to support the resilience of the teachers and administrators working in our schools, as well as to facilitate any environment conducive to greater learning and life outcomes for all students. “In this book, Sara provides clear tools, techniques, and strategies that can actually take something as elusive as beliefs and make it something understandable and embraceable in a concrete context. Furthermore, this book is not only written for teachers but also for educators, administrators, and policymakers in education at all levels—federal, state, and local. In fact, I feel that this book would be a beneficial resource for anyone working within any human service system.” —From the Foreword by

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Bonnie Benard, Author, with over 25 years of experience promoting the concept of resilience based practice nationally and internationally. “Truebridge has provided a gift to the field, bridging scientific evidence with everyday practice in schools toward maximizing resilience. She eloquently describes the enormous potential of authentic, caring relationships with teachers, and the critical need for teachers to be supported themselves in their ‘caretaking roles.’ With specific implementation directions provided, this is a must-read for educators at all levels of children’s development, from preschool through the end of high school.” —Suniya Luthar, Foundation Professor of Psychology, Arizona State University. “Resilience Begins with Beliefs is a splendid book that is strongly recommended for anyone involved in, or even just interested in, education. It is research based but also immensely practical and very engagingly written. Major environmental positives that apply to schools, as well as to other settings, are caring relationships, high expectations, and opportunities to participate, contribute, and take responsibility. This book integrates all of this in a most interesting and helpful way. It is a marvellous achievement.” —Sir Michael Rutter, Professor of Developmental Psychopathology, Institute of Psychiatry, London Book Features: Identifies concrete strategies for harnessing resilience in classrooms and schools. Encourages and promotes reader interaction with reflection questions in every chapter. Offers format suggestions for preservice and professional development programs. Provides many user-friendly features, such as personal reflection ideas for facilitators and participants, and a resilience-in-practice checklist. Sara Truebridge is an education consultant and

researcher with over 20 years of classroom experience. Prior to teaching, she was the legislative analyst for education in the New York State Senate and the special assistant to the New York State Secretary of State. She also serves as an education consultant to films, including *Race to Nowhere* and *Love, Hate, Love*.

Urban Disaster Resilience and Security

When community and family support systems are weak or unavailable, and when internal resources fail, populations that struggle with chronic, persistent, acute, and/or unexpected problems become vulnerable to physical, cognitive, emotional, and social deterioration. Yet despite numerous risk factors, a large number of vulnerable people do live happy and productive lives. This best-selling handbook examines not only risk and vulnerability factors in disadvantaged populations but also resilience and protective strategies for managing and overcoming adversity. This third edition reflects new demographic data, research findings, and theoretical developments and accounts for changing economic and political realities, including immigration and health care policy reforms. Contributors have expanded their essays to include practice with individuals, families, and groups, and new chapters consider working with military members and their families, victims and survivors of terrorism and torture, bullied children, and young men of color.

Promoting Psychological Resilience in the U.S. Military

Resilience and Urban Risk Management presents the latest progress made in designing resilient towns, and identifies leads to be explored for attaining the objective of systematically integrating risks into urban environments. The aim of the book is to provide guidance in designing and planning future cities, and to create a new form of risk management.

Building Resilience in Students Impacted by Adverse Childhood Experiences

In this book, the authors offer a set of principles and practical applications to help educators make a difference in their students' lives.

Resilience and Urban Risk Management

Structural Resilience in Sewer Reconstruction: From Theory to Practice provides engineers with a balanced mixture of theory and practice. Divided into three parts, structural resilience is introduced, along with different methods and theories that are needed to assess sewerage networks. The authors begin with a general overview of resilience and lessons learned, then present a comprehensive review

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of resilience theories in key fields of study. The book also introduces major analysis techniques and computational methods for resilience assessment, also highlighting sewer reconstruction projects carried out in Tokyo, including the reconstruction and development process for construction methods, renovation materials and technical inventions. The structural resilience considerations incorporated in various stages of development are discussed in detail. Computational examples for assessing structural resilience in the renovated sewer system in Tokyo are also shown, with final chapters summarizing structural resilience theories and areas for future study. Provides a comprehensive review of resilience theories and practices in key fields of study Presents a detailed study of the structural resilience approach to sewer reconstruction in Tokyo, also including case studies of overseas projects Includes a systematic presentation of structural resilience theories Covers rich case studies on various issues in sewerage systems for qualitative and quantitative resilience evaluation

Resilience Education

The resilience of computing systems includes their dependability as well as their fault tolerance and security. It defines the ability of a computing system to perform properly in the presence of various kinds of disturbances and to recover from any service degradation. These properties are immensely important in a world where many aspects of our daily life depend on the correct, reliable and secure operation

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2016-2017 Evaluation of the Regional Resilience Assessment Program and the Virtual Risk Analysis Cell

A practical framework to avoid burnout and keep great teachers teaching Onward tackles the problem of educator stress, and provides a practical framework for taking the burnout out of teaching. Stress is part of the job, but when 70 percent of

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teachers quit within their first five years because the stress is making them physically and mentally ill, things have gone too far. Unsurprisingly, these effects are highest in difficult-to-fill positions such as math, science, and foreign languages, and in urban areas and secondary classrooms—places where we need our teachers to be especially motivated and engaged. This book offers a path to resiliency to help teachers weather the storms and bounce back—and work toward banishing the rain for good. This actionable framework gives you concrete steps toward rediscovering yourself, your energy, and your passion for teaching. You'll learn how a simple shift in mindset can affect your outlook, and how taking care of yourself physically, mentally, and emotionally is one of the most important things you can do. The companion workbook helps you put the framework into action, streamlining your way toward renewal and strength. Cultivate resilience with a four-part framework based on 12 key habits Uncover your true self, understand emotions, and use your energy where it counts Adopt a mindful, story-telling approach to communication and community building Keep learning, playing, and creating to create an environment of collective celebration By cultivating resilience in schools, we help ensure that we are working in, teaching in, and leading organizations where every child thrives, and where the potential of every child is recognized and nurtured. Onward provides a step-by-step plan for reigniting that spark.

Onward

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Resilience in Children, Adolescents, and Adults: Translating Research into Practice recognizes the growing need to strengthen the links between theory, assessment, interventions, and outcomes to give resilience a stronger empirical base, resulting in more effective interventions and strength-enhancing practice. This comprehensive volume clarifies core constructs of resilience and links these definitions to effective assessment. Leading researchers and clinicians examine effective scales, questionnaires, and other evaluative tools as well as instructive studies on cultural considerations in resilience, resilience in the context of disaster, and age-appropriate interventions. Key coverage addresses diverse approaches and applications in multiple areas across the lifespan. Among the subject areas covered are: - Perceived self-efficacy and its relationship to resilience. - Resilience and mental health promotion in the schools. - Resilience in childhood disorders. - Critical resources for recovering from stress. - Diversity, ecological, and lifespan issues in resilience. - Exploring resilience through the lens of core self-evaluation. Resilience in Children, Adolescents, and Adults is an important resource for researchers, clinicians and allied professionals, and graduate students in such fields as clinical child, school, and developmental psychology, child and adolescent psychiatry, education, counseling psychology, social work, and pediatrics.

Disaster Resilience

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The responsibilities of the Department of Homeland Security (DHS) range from preventing foreign and domestic terrorist attacks; securing the nation's borders; safeguarding transportation systems; responding to natural disasters; nuclear detection; and more. Created in 2002 from a merger that rapidly incorporated parts of eight cabinet departments and 22 government agencies, DHS has struggled to integrate its numerous components and their unique cultures. While DHS is very accomplished at performing its many missions, the nature of the DHS work environment is inherently stressful, and employees suffer from low morale. A Ready and Resilient Workforce for the Department of Homeland Security: Protecting America's Front Line reviews current workforce resilience efforts, identifies gaps, and provides recommendations for a 5-year strategy to improve DHSTogether, the current DHS workforce resilience program. This report stresses the importance of strong leadership, communication, measurement, and evaluation in the organization and recommends content for a 5-year plan that will promote centralized strategic direction and resource investment to improve readiness and resilience at the department. While all DHS component agencies share a common mission, each have distinct roles with different stressors attached, making implementation of an organization-wide resilience or wellness program difficult. The recommendations of A Ready and Resilient Workforce for the Department of Homeland Security outline how DHS can focus its efforts on creating a common culture of workforce readiness and resilience, while recognizing the distinct, proud, celebrated cultures of its component agencies.

Handbook of Social Work Practice with Vulnerable and Resilient Populations

Catherine Simmons, PhD, LCSW ì Drs. Simmons and Lehmann have given all of us in the helping professionsó practitioners and researchers alikeó a comprehensive resource for finding and selecting psychometrically sound, practical, strengths-based measures that we can use not only to ì look at the resultsí but to do so in a way that we ì measure others by their strengths.í We look forward to seeing this invaluable resourceÖ on every social workerís desk in the coming years.î -John G. Orme, PhD, MSW Professor, University of Tennessee -Terri Combs-Orme, PhD The Urban Child Institute Endowed Professor Traditionally, assessment and evaluation have focused on the negative aspects or deficits of a clientís presentation. Yet strengths, health, and those things that are going ì rightî in a personís life are key protective factors in the prevention and treatment of many mental health problems. Thus, measuring strengths is an important component of a balanced assessment and evaluation process. This is the first compendium of more than 150 valid and reliable strengths-based assessment tools that clinicians, researchers, educators, and program evaluators can use to assess a wide array of positive attributes, including well-being, mindfulness, optimism, resilience, humor, aspirations, values, sources of support, emotional intelligence, and much more. These tools provide a clear picture of an individualís strengths while being easy to

complete, score, and interpret. The scales and instruments included are consistently formatted, organized according to construct measures, and include tools for working with adults, couples, families, children, and special populations. They represent a wide range of theoretical approaches and were written by a diverse array of professionals, including social workers, psychologists, nurses, physicians, and sociologists. Partial List of Instruments: Assessing Emotions Scale Affective Balance Scale Flourishing Scale Five Facet Mindfulness Questionnaire Positive States of Mind Scale Measure of Expectations for Partner Multidimensional Sense of Humor Scale Parenting Sense of Competence Scale Personal Well-being Index Proactive Coping Inventory Psychological Empowerment Scale Stress-Related Growth Scale Social Well-being Scales Wellness Beliefs Scale

Safety and Reliability - Safe Societies in a Changing World

The book is a tribute to the research contribution of Professor Andrei Reinhorn in the field of earthquake engineering. It covers all the aspects connected to earthquake engineering starting from computational methods, hybrid testing and control, resilience and seismic protection which have been the main research topics in the field of earthquake engineering in the last 30 years. These were all investigated by Prof. Reinhorn throughout his career. The book provides the most recent advancements in these four different fields, including contributions coming from six different countries giving an international outlook to the topics.

Resilience Assessment and Evaluation of Computing Systems

A Ready and Resilient Workforce for the Department of Homeland Security

Use trauma-informed strategies to give students the skills and support they need to succeed in school and life Nearly half of all children have been exposed to at least one adverse childhood experience (ACE), such as poverty, divorce, neglect, substance abuse, or parent incarceration. This workbook-style resource shows K-12 educators how to integrate trauma-informed strategies into daily instructional practice through expanded focus on: The experiences and challenges of students impacted by ACEs, including suicidal tendencies, cyberbullying, and drugs Behavior as a form of communication and how to explicitly teach new behaviors How to mitigate trauma and build innate resiliency

Resilience and Risk

This book explores key theoretical and empirical issues related to the development and implementation of planning strategies that can provide guidance on the transition to climate-compatible and low-carbon urban development. It especially

focuses on integrating resilience thinking into the urban planning process, and explains how such an integration can contribute to reflecting the dynamic properties of cities and coping with the uncertainties inherent in future climate change projections. Some of the main questions addressed are: What are the innovative methods and processes needed to incorporate resilience thinking into urban planning? What are the characteristics of a resilient urban form and what are the challenges associated with integrating them into urban development? Also, how can the resilience of cities be measured and what are the main constituents of an urban resilience assessment framework? In addition to addressing these crucial questions, the book features several case studies from around the world, investigating methodologies, challenges, and opportunities for mainstreaming climate resilience in the theory and practice of urban planning. Featuring contributions by prominent researchers from around the world, the book offers a valuable resource for students, academics and practitioners alike.

Resilience of Critical Infrastructure Systems

In the previous book in this series, Manfred Kets de Vries observed the experiences of leaders on a rollercoaster ride through their professional and personal lives. Now, he follows them down the rabbit hole into the unknown, where, like Lewis Carroll's Alice, they find a dystopian Wonderland in which everyone seems to have gone mad and life functions according to its own crazy logic, throwing up all kinds

of obstacles in the search for truth. Understanding what is happening around us has become more difficult than ever in the Age of Trump. Don't imperatives like "build that wall" sound very much like "Off with his head"? Unfortunately, and unlike Alice, we are not going to wake up from a bad dream and discover that everything is "nothing but a pack of cards". The first part of this book looks at the psychodynamics of leadership in both a business and a political context. The second focuses on the psychopathology of everyday life in organizations and the seemingly endless ways people can make a mess of things - including mega pay packages, acting out, digital addiction and other dysfunctional behaviour patterns. Each chapter ends with a brief anecdote to illustrate the dilemma it presents. In short, sharp nuggets, Kets de Vries helps make sense of how the madness of the present has affected leadership in organizations and the workplace.

Resilience in Children, Adolescents, and Adults

Security protections for critical infrastructure nodes are intended to minimize the risks resulting from an initiating event, whether it is an intentional malevolent act or a natural hazard. With an emphasis on protecting an infrastructure's ability to perform its mission or function, Critical Infrastructure System Security and Resiliency presents a practical methodology for developing an effective protection system that can either prevent undesired events or mitigate the consequences of such events. Developed at Sandia National Labs, the authors' analytical approach

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and methodology enables decision-makers and security experts to perform and utilize risk assessments in a manner that extends beyond the theoretical to practical application. These protocols leverage expertise in modeling dependencies—optimizing system resiliency for effective physical protection system design and consequence mitigation. The book begins by focusing on the design of protection strategies to enhance the robustness of the infrastructure components. The authors present risk assessment tools and necessary metrics to offer guidance to decision-makers in applying sometimes limited resources to reduce risk and ensure operational resiliency. Our critical infrastructure is vast and made up of many component parts. In many cases, it may not be practical or affordable to secure every infrastructure node. For years, experts—as a part of the risk assessment process—have tried to better identify and distinguish higher from lower risks through risk segmentation. In the second section of the book, the authors present examples to distinguish between high and low risks and corresponding protection measures. In some cases, protection measures do not prevent undesired events from occurring. In others, protection of all infrastructure components is not feasible. As such, this section describes how to evaluate and design resilience in these unique scenarios to manage costs while most effectively ensuring infrastructure system protection. With insight from the authors' decades of experience, this book provides a high-level, practical analytical framework that public and private sector owners and operators of critical infrastructure can use to better understand and evaluate infrastructure security strategies and policies.

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Strengthening the entire homeland security enterprise, the book presents a significant contribution to the science of critical infrastructure protection and resilience.

Urban Resilience

Feeling caught in cycles of failure or futility? Free yourself by discovering the power of true resilience -- the one ability essential to transcending hardship and directing your life. Dr. Gail Wagnild offers inspiring stories, proven research, and fun quizzes as she teaches you to embrace the five core characteristics and four rules that will help you live your very best life.

Handbook of Resilience in Children

No person or place is immune from disasters or disaster-related losses. Infectious disease outbreaks, acts of terrorism, social unrest, or financial disasters in addition to natural hazards can all lead to large-scale consequences for the nation and its communities. Communities and the nation thus face difficult fiscal, social, cultural, and environmental choices about the best ways to ensure basic security and quality of life against hazards, deliberate attacks, and disasters. Beyond the unquantifiable costs of injury and loss of life from disasters, statistics for 2011

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alone indicate economic damages from natural disasters in the United States exceeded \$55 billion, with 14 events costing more than a billion dollars in damages each. One way to reduce the impacts of disasters on the nation and its communities is to invest in enhancing resilience--the ability to prepare and plan for, absorb, recover from and more successfully adapt to adverse events. Disaster Resilience: A National Imperative addresses the broad issue of increasing the nation's resilience to disasters. This book defines "national resilience", describes the state of knowledge about resilience to hazards and disasters, and frames the main issues related to increasing resilience in the United States. It also provide goals, baseline conditions, or performance metrics for national resilience and outlines additional information, data, gaps, and/or obstacles that need to be addressed to increase the nation's resilience to disasters. Additionally, the book's authoring committee makes recommendations about the necessary approaches to elevate national resilience to disasters in the United States. Enhanced resilience allows better anticipation of disasters and better planning to reduce disaster losses--rather than waiting for an event to occur and paying for it afterward. Disaster Resilience confronts the topic of how to increase the nation's resilience to disasters through a vision of the characteristics of a resilient nation in the year 2030. Increasing disaster resilience is an imperative that requires the collective will of the nation and its communities. Although disasters will continue to occur, actions that move the nation from reactive approaches to disasters to a proactive stance where communities actively engage in enhancing resilience will reduce many of the broad

societal and economic burdens that disasters can cause.

Resilience Begins with Beliefs

The world is undergoing unprecedented changes in many of the factors that determine its fundamental properties and their influence on society. These changes include climate; the chemical composition of the atmosphere; the demands of a growing human population for food and fiber; and the mobility of organisms, industrial products, cultural perspectives, and information flows. The magnitude and widespread nature of these changes pose serious challenges in managing the ecosystem services on which society depends. Moreover, many of these changes are strongly influenced by human activities, so future patterns of change will continue to be influenced by society's choices and governance. The purpose of this book is to provide a new framework for natural resource management—a framework based on stewardship of ecosystems for human well-being in a world dominated by uncertainty and change. The goal of ecosystem stewardship is to respond to and shape change in social-ecological systems in order to sustain the supply and opportunities for use of ecosystem services by society. The book links recent advances in the theory of resilience, sustainability, and vulnerability with practical issues of ecosystem management and governance. The book is aimed at advanced undergraduates and beginning graduate students of natural resource management as well as professional managers, community leaders, and policy

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makers with backgrounds in a wide array of disciplines, including ecology, policy studies, economics, sociology, and anthropology.

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