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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Internal Combustion Engines Applied Thermosciences; Contents; Preface; Acknowledgments; Chapter 1:Introduction to Internal Combustion Engines; 1.1 Introduction; 1.2 Historical Background; 1.3 Engine Cycles; Otto Cycle; Diesel Cycle; Two-Stroke Cycle; 1.4 Engine Performance Parameters; Power, Torque, and Efficiency; Mean Effective Pressure; Volumetric Efficiency; Specific Fuel Consumption; Scaling of Engine Performance; 1.5 Engine Configurations; Engine Kinematics; Intake and Exhaust Valve Arrangement; Superchargers and Turbochargers; Fuel Injectors and Carburetors; Cooling Systems 1.6 Examples of Internal Combustion EnginesAutomotive Spark Ignition Four-Stroke Engine; Heavy Duty Truck Diesel Engine; Stationary Gas Engine; 1.7 Alternative Power Plants; 1.8 References; 1.9 Homework; Chapter 2:Heat Engine Cycles; 2.1 Introduction; 2.2 Constant Volume Heat Addition; 2.3 Constant Pressure Heat Addition; 2.4 Limited Pressure Cycle; 2.5 Miller Cycle; 2.6 Finite Energy Release; Energy Release Fraction; Energy Equation; Cylinder Heat and Mass Transfer Loss; 2.7 Ideal Four-Stroke Process and Residual Fraction; Exhaust Stroke; Intake Stroke; Four-Stroke Otto Gas Cycle Analysis 2.8 Discussion of Gas Cycle Models2.9 References; 2.10 Homework; Chapter 3:Fuel, Air, and Combustion Thermodynamics; 3.1 Introduction; 3.2 Thermodynamic Properties of Ideal Gas Mixtures;

Specific Heat of Fuel--Air Mixtures; 3.3 Liquid-Vapor-Gas Mixtures; 3.4 Stoichiometry; 3.5 Low-Temperature Combustion Modeling; Fuel-Air-Residual Gas; 3.6 General Chemical Equilibrium; 3.7 Chemical Equilibrium using Equilibrium Constants; 3.8 References; 3.9 Homework; Chapter 4: Fuel-Air Combustion Processes; 4.1 Introduction; 4.2 Combustion and the First Law; Heat of Combustion; Adiabatic Flame Temperature
Isentropic Processes
4.3 Maximum Work and the Second Law; Exergy Change for an Isentropic Compression or Expansion; Available Energy of Combustion; 4.4 Fuel-Air Otto Cycle; 4.5 Four-Stroke Fuel-Air Otto Cycle; 4.6 Homogeneous Two-Zone Finite Heat Release Cycle; 4.7 Comparison of Fuel-Air Cycles with Actual Spark Ignition Cycles; 4.8 Limited Pressure Fuel-Air Cycle; 4.9 Comparison of Limited Pressure Fuel-Air Cycles with Actual Compression Ignition Cycles; 4.10 References; 4.11 Homework; Chapter 5: Intake and Exhaust Flow; 5.1 Introduction; 5.2 Valve Flow; Valve Flow and Discharge Coefficients Exhaust Gas Blowdown Valve Mach Index; Valve Timing; Effect of Valve Timing on Volumetric Efficiency and Residual Fraction; 5.3 Intake and Exhaust Flow; 5.4 Superchargers and Turbochargers; 5.5 Effect of Ambient Conditions on Engine and Compressor Mass Flow; 5.6 References; 5.7 Homework; Chapter 6: Fuel and Airflow in the Cylinder; 6.1 Introduction; 6.2 Carburetion; 6.3 Fuel Injection-Spark Ignition; Fuel Injection Systems; 6.4 Fuel Injection-Compression Ignition; Diesel Injection Systems; Diesel Sprays; 6.5 Large-Scale in-Cylinder Flow; Introduction; Cylinder Flow Measurement Techniques
Computational Simulation of In-Cylinder Flow Fields

Sommario/riassunto

"Since the publication of the Second Edition in 2001, there have been considerable advances and developments in the field of internal combustion engines. These include the increased importance of biofuels, new internal combustion processes, more stringent emissions requirements and characterization, and more detailed engine performance modeling, instrumentation, and control. There have also been changes in the instructional methodologies used in the applied thermal sciences that require inclusion in a new edition. These methodologies suggest that an increased focus on applications, examples, problem-based learning, and computation will have a positive effect on learning of the material, both at the novice student, and practicing engineer level. This Third Edition mirrors its predecessor with additional tables, illustrations, photographs, examples, and problems/solutions. All of the software is 'open source', so that readers can see how the computations are performed. In addition to additional java applets, there is companion Matlab code, which has become a default computational tool in most mechanical engineering programs"--

2. Record Nr.	UNINA9910777854303321
Autore	Johnson Marysia <1958->
Titolo	The art of nonconversation [[electronic resource]] : a reexamination of the validity of the oral proficiency interview // Marysia Johnson
Pubbl/distr/stampa	New Haven, : Yale University Press, c2001
ISBN	1-281-73025-4 9786611730253 0-300-12944-0
Descrizione fisica	1 online resource (256 p.)
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Nota di bibliografia	Includes bibliographical references (p. [213]-226) and index.
Nota di contenuto	Front matter -- Contents -- Acknowledgments -- Abbreviations -- Chapter 1. Overview of the Book -- Chapter 2. The Genesis and Evolution of the OPI System -- Chapter 3. A Critical Appraisal of the OPI -- Chapter 4. Theoretical Bases for Investigating the OPI Speech Event -- Chapter 5. A Discourse Analysis Study of the OPI -- Chapter 6. Native Speakers' Perceptions of the OPI Speech Event -- Chapter 7. A Prototypical Model of the OPI Communicative Speech Event -- Chapter 8. Communicative Competence versus Interactional Competence -- Chapter 9. The Practical Oral Language Ability: The Application of Vygotsky's Sociocultural Theory to Language Testing -- Appendixes -- Bibliography -- Index
Sommario/riassunto	The Oral Proficiency Interview (OPI) is a widely accepted instrument for assessing second and foreign language ability. It is used by the Foreign Language Institute, the Defense Language Institute, Educational Testing Service, the American Council on the Teaching of Foreign Languages, and at many universities in the United States. The Art of Non-Conversation examines the components of speaking ability and asks whether the OPI is a valid instrument for assessing them. Marysia Johnson applies the latest insights from discourse and conversational

analysis to determine the nature of the OPI's communicative speech event and investigate its construct validity within Messick's definition of validity. She discusses models of speaking ability-several communicative competence models, an interactional competence model, and a model of spoken interaction based on Vygotsky's sociocultural theory of learning. Finally she proposes a new model to test language proficiency drawn from sociocultural theory, one that considers language ability to be reflective of the sociocultural and institutional contexts in which the language has been acquired.
