Referências Bibliográficas

[1] PATIL, P. A.; GOREK, M.; FOLBERTH, M. Experimental study of electrical properties of oil-based mud in the frequency range from 1mhz to 100mhz. *SPE Drillin and Completion*, 2010. (document), 1.1, 4.1, 4.1, 4.1, 4.3, 4.4, 4.1

[2] SANCHES, C. A. *Projetando Redes WLAN*. São Paulo: São Paulo, 2007. (document), 4.3, 4.8, 4.3

[3] CARDEN, F.; JEDLICKA, R.; HENRY, R. *Telemetry Systems Engineering*. Norwood, MA, EUA: Artec House Inc., 2002. 1.1

[4] Scott Brilles. *Remote Downhole Well Telemetry*. 2004. US 6.766.141. 1.1

[5] ROSA, A. J.; CARVALHO, R. D. S.; XAVIER, J. A. D. *Engenharia de Reservatórios de Petróleo*. [S.l.]: Interciência, 2006. 1.1

[6] ARREGUI, F. J. *Sensors based on nanostructured materials*. [S.l.]: Springer, 2009. 1.1

[7] SAKATA. Performance analysis of long distance transmitting of magnectic signal on cylindrical steel rod. *IEEE Translation Journal on Magnectics in Japan*, 1993. 1.1

[8] Harold J. Vinegar, Robert Rex Burnett, William Mountjoy Savage, Frederick Gordon Carl e James William Hall. *Permanent Downhole, Wireless, Two-way Telemetry Backbone Using Redundant Repeaters*. 2003. US 6.633.236 B2. 1.1

[9] KENNEDY, B. W. *Energy efficient transformers*. [S.l.]: McGraw-Hill, 1998. 1.1

[10] Kambiz A. Safynia e Roger W. McBride. *System and Method for Communicating Signals in a Cased Borehole Having Tubing*. 1989. US 4.839.644. 1.1

[11] FISHMAN, G. S. *Monte Carlo: Concepts, Algorithms and Applications*. Nova Iorque, EUA: Springler Verlac, 2003. 1.1, 3.2

[12] MICHALEWICZ, Z. *Genectic Algorithms + Data Structures*. [S.l.]: Springler Verlac Berlim - New York, 1999. 1.1, 4.4

[13] BALANIS, C. A. *Advanced Engineering Electromagnetics*. Arizona: Wiley, 1989. 2.1, 2.2.1, 2.2.1, 2.2.2, 2.3, 2.3, 4.1

[14] GURU, B. S.; HIZIROGLU, H. R. *Electromagnetic field theory fundamentals*. 2. ed. Cambridge, United Kingdom: Cambridge University Press, 2004. 2.2.1

[15] RAMO, S.; WINNERY, J. R.; DUZER, T. V. *Fields And Waves In Communication Engineering*. 3. ed. [S.l.]: Wiley, 1994. 2.4.1, 2.5, 2.5

[16] YU, W. et al. *Electromagnetic Simulation Techniques Based on the FDTD Method*. [S.l.]: Wiley, 2009. 2.6

[17] YEE, K. Numerical solution of initial boundary value problems involving maxwell's equations in isotropic media. *Antennas and Propagation, IEEE Transactions on*, v. 14, n. 3, p. 302 –307, maio 1966. ISSN 0018-926X. 2.6

[18] FDTD. `http://www.fdtd.org`. 2.6

[19] MARKLEIN, R. *The Finite Integration Technique as a General Tool to Compute Acoustic, Electromagnetic, Elastodynamic, and Coupled Wave Fields*. 1999. 2.6

[20] CANIGGIA, S. et al. Finite integration technique numerical modeling for emc and signal integrity problems. In: *Industrial Electronics, 2002. ISIE 2002. Proceedings of the 2002 IEEE International Symposium on*. [S.l.: s.n.], 2002. v. 4, p. 1404 – 1409 vol.4. 2.6

[21] HOLLAND, J. H. *Adaptation in Natural and Artificial Systems*. University of Michigan: Ann Arbor, 1975. 3.1

[22] CONNOLLY, K. et al. Coupling maxwell's equation time-domain solution with monte-carlo technique to simulate ultrafast optically controlled switches. In: *Microwave Symposium Digest, 1990., IEEE MTT-S International*. [S.l.: s.n.], 1990. p. 295 –298 vol.1. 3.2

[23] BEDDEK, K. et al. 3d stochastic spectral finite element method in static electromagnetism using vector potential formulation. In: *Electromagnetic Field Computation (CEFC), 2010 14th Biennial IEEE Conference on*. [S.l.: s.n.], 2010. p. 1. 3.2

[24] EDWARDS, R.; MARVIN, A.; PORTER, S. Uncertainty analyses in the finite-difference time-domain method. *Electromagnetic Compatibility, IEEE Transactions on*, v. 52, n. 1, p. 155 –163, 2010. ISSN 0018-9375. 3.2

[25] SADIKU, M. Monte carlo methods in an introductory electromagnetic course. *Education, IEEE Transactions on*, v. 33, n. 1, p. 73 –80, fev. 1990. ISSN 0018-9359. 3.2

[26] MCKAY, M. D.; BECKMAN, R. J.; CONOVER, W. J. A comparison of three methods for selecting values of input variables in the analysis of output from a computer code. *Technometrics*, American Society for Quality Control and American Statistical Association, Alexandria, Va, USA, v. 42, p. 55–61, February 2000. ISSN 0040-1706. Disponível em: <http://portal.acm.org/citation.cfm?id=338441.338456>. 3.2

[27] EREMIN, I. I. *Theory of Linear Optimization*. [S.l.]: VSP, 2002. 4.4

[28] KALANTAR-ZADEH, K. et al. *Nanotechnology-Enabled Sensors*. [S.l.]: SPRINGER-VERLAG NEW YORK INC, 2007. 4.6

[29] CRUZ, A. V. A. da et al. Quantum-inspired evolutionary algorithms and its application to numerical optimization problems. *Lecture Notes in Computer Science*, v. 3316/2004, 2004. 5.2

[30] STEINER, I. *Otimização da Distribuição em Orbitais e Parametrização de Primitivas Gaussianas para o Modelo de Hartree-Fock por Algoritmos Evolucionários*. Dissertação (Mestrado) — Pontifícia Universidade Católica do Rio de Janeiro, Rio de Janeiro - RJ, 2009. Conceito CAPES da instituição: 6. 5.2

A
Significados e definições dos símbolos utilizados

A.1
Símbolos básicos

Símbolo de definição: $\stackrel{\text{def}}{=}$. Unidade imaginária:

$$\jmath \stackrel{\text{def}}{=} \sqrt{-1} \tag{A-1}$$

A.2
Conjuntos

Conjunto dos números naturais: $\mathbb{N}$. Conunto dos números reais: $\mathbb{R}$. Conjunto dos números complexos: $\mathbb{C}$. Conjunto dos números reais não-negativos:

$$\mathbb{R}_+ \stackrel{\text{def}}{=} \{x \in \mathbb{R} : x \geq 0\} \tag{A-2}$$

A.3
Operadores básicos

Parte real de um número imaginário:

$$\Re(x + \jmath y) \stackrel{\text{def}}{=} x \quad \forall x,\, y \in \mathbb{R} \tag{A-3}$$

Parte imaginária de um número imaginário:

$$\Im(x + \jmath y) \stackrel{\text{def}}{=} y \quad \forall x,\, y \in \mathbb{R} \tag{A-4}$$