CURRICULUM VITAE

Functia in cadrul Programului / Proiectului: participant
1. Numele: Dragoman
2. Prenumele: Mircea
3. Data si locul nasterii: 06.05.1999, Bucuresti, Romania
4. Cetatenie: romana
5. Starea civila: casatorit
6. Studii:

Institutia	Univ. Politehnica Bucuresti	Univ. Politehnica Bucuresti
Perioada: de la (luna, anul) pana la (luna, anul)	01.09.1975 – 30.07.1980	09.1985 – 10.07.1991
Grade sau diplome obtinute	Ing. electronist	Doctor in electronica

7. Titlul stiintific: Dr. inginer
8. Experienta profesionala:

Perioada: de la (luna, anul) pana la (luna, anul)	09.1980 – 04.1984	04.1984 – 11.1996	12.1996 - prezent
Locul:	Bucuresti	Bucuresti	Bucuresti
Institutia:	Intr. Elemente Automatizare	Inst. de Cercetari pentru Componente Electronice	Inst. National de Cercetare-Dezvoltare pt. Microtehnologii
Functia:	Ing. electronist	CP III, CP II, CP I	CP I
Descriere:	proiectare	Microunde	Structuri microprelucrate in microunde

9. Locul de munca actual si functia: Inst. National de Cercetare-Dezvoltare pt. Microtehnologii, CP I
10. Vechime la locul de munca actual: 18ani
11. Brevete si inventii: 1
12. Lucrari elaborate si/sau publicate: vezi anexa
13. Membru al asociatiilor profesionale: membru IEEE
14. Limbi straine cunoscute: engleza (5), franceza (5), germana (3), italiana (3)
15. Alte competente (de ex. Informatica, etc.): optoelectronica, semiconductori AIII-BV
16. Specializari / calificari:

Tara	Perioada si domeniul
Germania	1.10.91-12.1992, 11.1993-06.1994 studii postdoc (bursa Humboldt) microunde+optoelectronica
Italia	1.04.1993-20.09.1994 bursie NATO microunde

17. Experienta acumulata in alte programe

Programul/Proiectul	**Functia**	**Perioada:de la...(anul) pana la... (anul)**
Proiect MANANTECH "Tehnologii de realizare a microsistemelor pentru comunicatii bazate pe compusi $A_{iii}B_{v}$ si noi materiale polyimidice"	participant	2001-2004
Proiect international INCO-COPERNICUS Nr.977131 MEMSWAVE 1998-2001	participant	1998- 2001
Tehnologii de tip MEMS, metode de proiectare si modelare pentru circuite cu aplicatii in domeniul undelor centimetrice, milimetrice si submilimetrice (ctr. Orizonr 2000)	participant	2000-2002
Circuite microprelucrate cu aplicatii in domeniul de microunde si unde milimetrice (ctr. ALTCORINT 6/2000)	participant	2000-2001
Proiect FP6 AMICOM-retea de exclenta pentru RF-MEMS	partipant	2004-2007
Proiect MATNANTECH Componente microprelucrate pentru selectarea canalelor de comunicatii in unde milim.	director de proiect	2003-2005

Proiect MATNANTECH DISPOZITIVE CU UNDE ACUSTICE DE SUPRAFATA SI DE VOLUM PENTRU APLICATII IN BIOMEDICINA SI MONITORIZAREA POLUARII MEDIULUI	participant	2004-2006

18.Alte mentiuni: premiul Academiei Romane "Gh. Cartianu",2001- - - - - - - - - - - - - - - -

Lista de lucrari (selectie)

Carti

1. **M. Dragoman**, R. Kremer, D. Jäger - Pulse generation and compression of a travelling wave MMIC Schottky diode array, in Ultra-wideband Short-Pulse Electromagnetics, H. Bertoni ed., pp.67-74, Plenum Press, New York, 1993
2. **M. Dragoman**, D. Dragoman - An overview of microwave and millimeter nonlinear wave propagation in magnetic, acoustic and electromagnetic distributed nonlinear physical systems, in Nonlinear Microwave Signal Processing: Towards a New Range of Devices, R. Marcelli and S. Nikitov eds., pp.13-43, Kluwer Academic, Dordrecht, The Netherlands, 1996
3. R. Marcelli, P. de Gasperis, G. Bartolucci, F. Pinni, **M. Dragoman** - Design of nonlinear transmission lines: GaAs and Magnetic film devices in Nonlinear Microwave Signal Processing: Towards a New Range of Devices, R. Marcelli and S. Nikitov eds., pp.71-99, Kluwer Academic, Dordrecht, The Netherlands, 1996
4. R. Marcelli, P. de Gasperis, **M. Dragoman**, S.Jun-Bright surface wave solitons in magnetostatic wave delay lines in Advanced linear and Nonlinear Microwave Signal Processing by means of Magnetostatic Wave Devices, Research Signpost,Trivandrum , India, 1996
5. D. Dragoman, **M. Dragoman** - Advanced Optoelectronic Devices, 421+xii Springer Verlag, 1999
6. D. Dragoman, **M. Dragoman**-, Optical Characterization of Solids, Springer Verlag, Heidelberg, Germany, 2002, aprox. 450pp+xii.
7. D.Dragoman, M.Dragoman, Quantum Classical Analogies, Springer, 2004, 360 pp.,
8. M.Dragoman and D.Dragoman, Nanoelectronics, Artech House (USA), 2005, 450 pp. (sub tipar)

Reviste internationale

1. D. Dragoman, **M. Dragoman** – *"On the similarities between the Wigner distribution function in classical and quantum optics",* Optik, 112, pp.497-501, 2002
2. D. Dragoman, **M. Dragoman** – *"Characterization of wavefront of light beams by use of tunnelling cantilevers*", Appl. Opt. 40, pp.678-682, 2001
3. D. Dragoman, **M. Dragoman** – *"Quantum coherent versus classical coherent light*", Optical and Quantum Electronics, 33, pp.239-252, 2001.
4. D. Dragoman, **M. Dragoman** – *"Terahertz field characterization using Fabry-Perot-like cantilevers*", Appl. Phys. Lett. 79, pp.581-583., 2001.
5. D. Dragoman, **M. Dragoman** – *"Micro/Nano-Optoeletromechanical systems",* Progress in Quantum Electronics 25, pp.229-290, 2001
6. D. Dragoman, M. Dragoman, A. R. Trasca – *"The Wigner transform of solitons solutions in* $\chi^{(2)}$ *media",* Optik 111, pp.20-24, 2000.
7. D. Dragoman, **M. Dragoman** - *Optical realization of the ambiguity function of real two-dimensional light sources.* Appl.Opt. 39, pp.2912-2917, 2000

8. D. Dragoman, M**. Dragoman** – *Single device for laser source measurement from UV to far IR* Appl.Opt. 39, 4361-43.65, 2000 D. Dragoman, **M. Dragoman** – Characterization of wavefront of light beams by use of tunnelling cantilevers, Appl. Opt., vol.40, pp.678-682, 2001

9. D. Dragoman, **M. Dragoman** - Quantum coherent versus classical coherent light, Optical and Quantum Electronics, vol.33, pp.239-252, 2001

10. D. Dragoman, **M. Dragoman** - Terahertz field characterization using Fabry-Perot-like cantilevers, Appl. Phys. Lett., vol.79, pp.581-583, 2001

11. D. Dragoman, **M. Dragoman** – Micro/Nano-Optoeletromechanical systems, Progress in Quantum Electronics, vol.25, pp.229-290, 2001

12. D. Dragoman, **M. Dragoman** – On the similarities between the Wigner distribution function in classical and quantum optics, Optik, vol.112, pp.497-501, 2002

13. D. Dragoman, **M. Dragoman**, K.-H. Brenner – Tomographic amplitude and phase recovery of vertical-cavity surface-emitting lasers using the ambiguity function, Opt. Lett., vol.27, pp.1519-1521, 2002

14. D. Dragoman, **M. Dragoman**, K.-H. Brenner – Amplitude and phase recovery of rotationally symmetric beams, Appl. Opt., vol.41, pp.5512-5518, 2002

15. D. Dragoman, **M. Dragoman** – Biased micromechanical cantilever arrays as optical image memory, Appl. Opt., vol.42, pp.1515-1519, 2003.

16. D. Dragoman, **M. Dragoman** – Single chip device for tunneling time measurements, J. Appl. Phys., vol.93, pp.6133-6136, 2003

17. D. Dragoman, **M. Dragoman** – Carbon nanotube zoom lenses, IEEE Trans. Nanotechnology, vol.2, pp.93-96, 2003

18. D.Dragoman**, M. Dragoman**, Tunable fractional Fourier transformer for ballistic electrons, J. Appl. Phys., vol.94, pp.4131-4134, 2003

19. D. Dragoman, **M. Dragoman** – Reconfigurable electro-optical waveguide for optical processing, Appl. Opt., vol.42, pp.6439-6444, 2003

20. D. Dragoman, **M. Dragoman** – Terahertz fields and applications, Prog. Quantum Electron., vol.28, pp.1-66, 2004

21. D. Dragoman, **M. Dragoman** – Terahertz oscillations in semiconducting carbon nanotube resonant-tunneling diodes, Physica E, vol.24, pp.282-289, 2004

22. D. Dragoman, **M. Dragoman** – Time-frequency signal processing of terahertz pulses, Appl. Opt., vol.43, pp.3848-3853, 2004

23. D. Dragoman, **M. Dragoman** – Terahertz continuous wave amplification in semiconductor carbon nanotubes, Physica E,.vol.25, no.4, pp.492-496, 2005

24. G. Bartolucci, D. Neculoiu, R.Marcelli, R.Marcelli, " Experimental characterization of 38 GHz micromachined GaAs receiver", Electronics Letters, vol.41, no.5, pp.256-257, 2005.

25. A. Pantazis, D. Neculoiu, Z. Hazoupulos, D. Vasilache, M. Lagas**, M. Dragoman**, C. Buiculescu, I. Petrini, A. Muller, G. Konstantinidis, A. Muller "Passive millimeter wave passive circuits based GaAs micromachining", Journal of Micromech. Microeng., vol.15,pp.S-53-S59, 2005.

Conferinte internationale

1. D.Vasilache, R.Enachescu, F.Vladoianu, **M.Dragoman**, N.Nitescu "Microwave field tomography based on microelectromechanical structures" Proc CAS 2001, pp569-573

2. A.Muller, F.Giacomozzi, I.Petrini, C.Buiculescu, D.Vasilache, **M.Dragoman**, V.Avramescu, D.Dascalu, M.Zen "Silicon based micromachined millimeter wave receiving modules with bonded GaAs Schottky diodes" MEMSWAVE Workshop 2001

3. D.Neculoiu, G.Bartolucci**, M.Dragoman**, D.vasilache, S.Iordanescu, R.Marcelli, A.Muller "A new approach in the design and modelling of micromachined millimeter wave circuits" MEMSWAVE Workshop 2001

4. **M. Dragoman**, D. Dragoman – Optical field characterization using tunneling microstructures, 23th International Annual Conf. of Semiconductors, Sinaia, Romania, p.393-396,2000

5. A Muller, D. Neculoiu, F. Giacomozzi, I. Petrini, C. Buiculescu, D. Vasilache, **M. Dragoman**, V. Avramescu, D. Dascalu, M. Zen – Silicon based micromachined receiving module for 38GHz with bonded GaAs Schottky detector diode, Micromechanics Europe (MME), Cork, Ireland, Sept. 2001

6. R. Marcelli, **M. Dragoman**, D. Neculoiu, F. Giacomozzi, A. Muller, N.Nitescu-38GHz antenna on micromachined silicon substrate, European Microwave Conf., London, 2001.

7. G. Bartolucci, **M. Dragoman**, D. Neculoiu, F. Giacomozzi, A. Muller, R. Marcelli A. Muller-Micromachined coplanar wave band –pass filters, European Microwave Conf., London, 2001.

8. D. Dragoman, K.-H. Brenner, **M. Dragoman**, J. Bähr, U. Krackhardt, "Proposed variable fractional Fourier transformer using an H-rod microlens", DGaO (Deutsche Gesellschaft für angewandte Optik) Conf., Berlin, May 1999, p.110.

9. D. Dragoman, **M. Dragoman**, J. Bähr, K.-H. Brenner, „Experimental microoptical objects characterization in phase space", DGaO (Deutsche Gesellschaft für angewandte Optik) Conf., Berlin, May 1999, p.154.

10. M. Dragoman, **D. Dragoman**, "Optical actuation of micromechanical tunneling structures", Proc. 22nd International Semiconductor Conference - CAS'99, Sinaia, Oct. 1999, pp. 451-454.

10 M. Dragoman, **D. Dragoman** – Optical field characterization using tunneling microstructures, 23th International Annual Conf. of Semiconductors, Sinaia, Romania, pp.393-396, 2000

11. A. Muller, D. Neculoiu, F. Giacomozzi, I. Petrini, C. Buiculescu, D. Vasilache, **M. Dragoman**, V. Avramescu, D. Dascalu, M. Zen – Silicon based micromachined receiving module for 38GHz with bonded GaAs Schottky detector diode, Micromechanics Europe (MME), Cork, Ireland, Sept. 200112

12. R. Marcelli, **M. Dragoman**, D. Neculoiu, F. Giacomozzi, A. Muller, N. Nitescu - 38GHz antenna on micromachined silicon substrate, European Microwave Conf., London, 2001

13. G. Bartolucci, **M. Dragoman,** D. Neculoiu, F. Giacomozzi, A. Muller, R. Marcelli A. Muller- Micromachined coplanar wave band –pass filters, European Microwave Conf., London, 2001

14. **M. Dragoman**, D. Dragoman – Single-chip quantum fractional Fourier transformer, 25th International Annual Conf. of Semiconductors, Sinaia, Romania, pp.395-398, 2002

15. D. Neculoiu, G. Bartolucci, M. Dragoman, R. Marcelli, F. Giacomozzi, A. Muller - Computer-aided design of mm-wave circuits fabricated on micoromachined silicon, 25th International Annual Conf. of Semiconductors, Sinaia, Romania, pp.21-24, 2002.

16. **M. Dragoman**, D. Dragoman – Tomographic characterization of micromachined vertical-cavity surface-emitting lasers, MicroMechanics Europe, Sinaia, Romania, pp.221-224, 2002

17. D. Vasilache, M. Rusu, **M. Dragoman,** A. Muller, M. Cherestes, C. Buiculescu, R. Enachescu, F. Vladoianau, I. Dragan- Micromachined sensing structures based on tunnelling effect, MicroMechanics Europe, Sinaia, Romania, pp.225-228, 2002

18. **M. Dragoman**, D. Dragoman – Carbon nanotube resonant-tunneling diodes as terahertz oscillators, 26th International Annual Conf. of Semiconductors, Sinaia, Romania, pp.75-78, 2003

19. D. Neculoiu, G. Bartolucci, P. Pons, L. Bary, D. Vasilache, C. Buiculescu, F. Vladoianu, **M. Dragoman**, I. Petrini, A. Muller, R. Plana – Low-losses coupled-lines silicon micromachined band-pass filters for the 45 GHz frequency band, 26th International Annual Conf. of Semiconductors, Sinaia, Romania, pp.109-112, 2003.

20. D. Neculoiu, G. Bartolucci, G. Konstantinidis, R. Marcelli, I. Petrini, **M.Dragoman**, D. Vasilache, A . Muller " A micromechined 38 GHz Schottky-diode uniplanar monolithic integrated quasi-optical mixer", 2004 IEEE Radio Frequency Integrated Circuits Sympozium, Forth Worth, pp. 531 – 534, 2004.

21. M.Dragoman and D.Dragoman, "Carbon nanotube-based oscillators and amplifiers for terahertz signals", MEMSWAVE Conference, Uppsala, Suedia, pp. I5-I7, 2004.

22. A. Pantazis, D. Neculoiu, Z. Hazoupulos, D. Vasilache, M. Lagas, M. Dragoman, C. Buiculescu, I. Petrini, A. Muller, G. Konstantinidis, A. Muller " New millimeter wave circuits based GaAs micromachining", 15 th MME Conference, pp. 245-248

23. H.L. Hartnagel, M. Dragoman, "Modulation of quantum-electronic devices by bending of special mems structures"(lucrare invitata), CAS, Sinaia, pp. 19-27, 2004.

24. A.Cismaru, M.Dragoman, H. Hartnagel," Switching microwaves with Mott materials," MEMSWAVE Conf., Lausanne, june 2005.

MEMORIU DE ACTIVITATE

Prezentul memoriu de activiate este prezentat in **directa relevanta cu programulCCEX si prezentul proiect**. CV-ul atasat este extrem de extins si ofera o imagine compeleta a activitatii mele.

In acest sens , am publicat 120 de lucrari din care 62 in reviste cotate ISI restul reprezentind lucrari publicate la comunicari stiintifice sau conferinte interne si internationale. Factorul de impact al tututor acestor lucrari este approx. 75 . In plus, am publicat 4 carti la editurile Springer si una la Artech House (USA)-in curs de publicare. In plus, sunt editor al seriei de carti Frontier Collection a editurii Springer care publica carti depre subiecte aflate la frontierele cunoasterii. Marea majoritate a lucrarilor publicate (a se vedea lista de lucrari anexata) se refera la domenii prioritare CCEX si anume:

- circuite si dispozitive pentru microunde , unde milimetrice, si submilimetrice (terahetz-THz)
- optoelctronica
- microsisteme
- nano-dispozitive electronice electronice si optice.

Tot in domeniile de mai sus am participat in calitate de coautor la eleaborarea a peste 100 rapoarte de cercercetare. In calitate de partipant am lucrat la urmatoarele proiecte MATNANTECH: COMPOLIMES, SIRMEMS, Centrul de excelenta RF-MEMS; din 2003 sunt directorul proiectului SECOM in curs de desfasurare. Am participat la proiectul FP-4 MEMSWAVE incheiat in 2001, si particip din 2004 la reteaua de excelenta in domeniul RF-MEMS finantata pe FP6 si denumita AMICOM.

In anul 2001 mi s-a acordat Premiul Academiei Romane " Gheorgehe Cartianu"-pentru cartea " Advanced Optoelectronic Devices", Springer, 1999. In anul 2002 am fost nominalizat la premiul Descartes al UE impreuna cu colegii din tara si strainatate care au participat la proiectul MEMSWAVE. In anii 2003 si 2004 am fost selectat de fundatia Alexander von Humboldt ca lector inviatat pentru o series de universitati din Germania (Univ. Frankfurt, Darmstadt) pentru a prezenta conferinte despre MEMS, NEMS, nanotehnologie, unde in domeniul THz.

Declar pe propria raspundere ca datele prezentate sunt in conformitate cu realitatea.

Data completarii
24.06.2005

Semnatura
Cercetator stiintific principal gr I,
Dr.ing. Mircea Dragoman