

## **Curriculum Vitae**

### **Personal Details:**

**Name & first name :** CHETATE Boukhemis

**Office Address:** Dept. Of Automation and Electrification of Industrial Process,  
Faculty of Hydrocarbons and Chemistry, University M'Hamed Bougara,  
Avenue de l'Indépendance, Boumerdès, 35000, Alegria.

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**Education:** Science Doctorate, Electrical Engineering (1997), National Commission of Equivalences, Algeria.

PhD, Electrical Engineering (1990), Moscow Power Engineering Institute, Moscow, Russia.

Engineer Degree, Electrical Engineering (1984), National Institute of Hydrocarbons and Chemistry, Boumerdès, Algeria.

### **Summary of Qualifications:**

M'Hamed Bougara University, Boumerdès, Algeria. June 2004 – present  
-Full-time Professor, Director of Research Laboratory on Electrification of Industrial Enterprises, Dept. Of Automation and Electrification of Industrial Process, Faculty of Hydrocarbons and Chemistry.

M'Hamed Bougara University, Boumerdès, Algeria. Sept. 2000- June2004  
-Full-time Associate Professor, Director of Research Laboratory on Electrification of Industrial Enterprises, Dept. Of Automation and Electrification of Industrial Process, Faculty of Hydrocarbons and Chemistry, Boumerdès, Algeria.

M'Hamed Bougara University, Boumerdès, Algeria. Sept. 1998- June 2000  
-Full-time Associate Professor, Head Post Graduate Program, Dept. Of Automation and Electrification of Industrial Process, Institute of Hydrocarbons and Chemistry.

National Institute of Hydrocarbons and Chemistry, Boumerdes, Algeria. Sept. 1997 - Sept. 1998  
- Full time Assistant Professor Lecturer, Head Of Electrical Engineering Dept.

National Institute of Hydrocarbons and Chemistry, Boumerdes, Algeria. Sept. 1994- Sept. 1995  
- Full time Assistant Professor Lecturer, Head of Electromechanical Engineering Division, Dept. Of Electrical Engineering, , Head Post Graduate Program.

National Institute of Hydrocarbons and Chemistry, Boumerdes, Algeria. Sept. 1990- Sept. 1994  
- Full time Assistant Professor Lecturer, Dept. Of Electrical Engineering.

### **Scientific Publications:**

#### **International papers:**

1. **B.CHETATE**, T.KHALDI, B. BOUDJENAH, C.KARA;"Development of a C.A. D. system allowing the choice of the power of the electric motors", International Journal of the Advanced Technologies (Revue Internationale des Technologies Avancées), N° 8, pp. 39-52, ISSN 111 – 0902, 1995.

2. **B.CHETATE**, A.LEBAROUD;"Approch for the elaboration of a diagnosis automated system of electric machine breakdowns", Cements Concretes Plasters Lime Journal (Revue Ciments Betons Platres Chaux), N°823-6/96, pp.428-431, ISSN 0397 - 006X, France.

3. **B.CHETATE**, C.KARA, M.FENNECHE;" Application of the industrial expert system for the choice of the electric motors of the cement factory of Meftah, Algeria», Cements Concretes Plasters Lime Journal (Revue Ciments Betons

Platres Chaux), N°817-6/95, pp.388-390, ISSN 0397 - 006X.

**4. L.A.ILIACHENKO, B.CHETATE;** " Development of a C.A.D. system allowing the optimal choice of the lifting mechanism electric drives ", Research Work Periodic N°213, pp. 88 - 95, ISSN 0234 - 9124, Moscow Power Institute, Russia, 1989.

**5. B.CHETATE, T.KHALDI, B.BOUDJENAH, C.KARA;**" Application of the artificial intelligence techniques for the choice of the variable speed drive systems", Cements Concretes Plasters Lime Magazine (Revue Ciments Betons Platres Chaux), N° 835 - 6.98, pp.452 -458, ISSN 0397 - 006X.

**6. B.CHETATE, C.KARA, G.TCHEREMETCHKO, I.MERAZKA;**" Development of the industrial expert system and its application for the rational choice of crushing and grinding facilities of a cement factory", International Journal on Advanced Technologies (Revue Internationale des Technologies Avancées) , N°10, September 1998, pp.49 -54, ISSN 111 – 0902.

**7. B.CHETATE, A.LEBAROUD, M.A.AITOUICHE;**" Real-time intelligent failure diagnosis of electromechanical systems", periodical of AMSE International, Series: Advances in Modelling and Analysis, 1999 - Vol.41, n° 1, 2, ISSN 0761-2486, pp.39-50 (IEE INSPEC CLASSIFICATION, INDEX DISPLAY: postings 54).

**8. H.Labar, K.Bounaya, B. Chetate, M.S. Kelaia, T.Mesbah;** "Control of Over-Voltages due to Capacitors Banks at Customer Systems", Journal of Oil & Gas Technologies, in English, acceptance letter on date of 30 November 2003.

**9.N.KABACHE, B. CHETATE** 'Adaptive Nonlinear Control of Induction Motor Using Neural Networks', IEEE proceedings/ International Conference on "Physics and Control" (PhysCon 2003), St. Petersburg, Russia, August, 2003, , **IEEE** CNF 0-7803-7939-x/03/2003, pp.259-264.

**10.B. Chetate, A.Kheldoun,** "Adaptive Control of Induction Machine by Fuzzy Logic", Journal of sciences and technology of hydrocarbons, n°3 (28),ISSN 0234 - 8276, pp.69-77, 2003.

**11. B. CHETATE, A. GROUNE;** "Elements of Algeria's energetic policy ", Journal of Oil & Gas Technologies, in English, acceptance letter on date of 30 November 2003.

**12. B.CHETAE (B.SHETAT), Dj. KHODJA (HODGA Dg.);** " Artificial neuron network usage for asynchronous motor malfunction diagnostics in real-time operation mode", Journal ELEKTROTEKHNIKA [ in Russian ISSN 0234-7415 (ZAO ZNAK, Russia) and in English ISSN 1068-3712 (ALLERTON PRESS, U.S.A) ], n°12 (December 2003), pp.16-20, Index: 71111 (IEE INSPEC CLASSIFICATION, The National Research Council of Canada, The British Library, PERIODICA, ....)

**13. B. Chetate, A. Kheldoun;**"Power loss minimization for vector control induction machine", Elektrichestvo (Electricity) /Science and Technical Journal of the Russian Academy of Sciences (edited in English by Pergamon-Elsevier ltd. in U.K. ISSN 0965-65433)// ISSN 0013-5380, n°4, December 2004, Index: 71106 (IEE INSPEC CLASSIFICATION, The National Research Council of Canada, The British Library, PERIODICA,...)

**14. M.T. BELASSEL, VESPALLOV, B.CHETATE ;** « Paramètres capacitifs et surtensions dans l'enroulement d'un moteur asynchrone, alimenté par un convertisseur MLI » // Electrotekhnika, 2005, Nr. 1, p. 44-48. MOSCOU. [ in Russian ISSN 0234-7415 (ZAO ZNAK, Russia) and in English ISSN 1068-3712 (ALLERTON PRESS, U.S.A) ], n°12 (December 2003), pp.16-20, Index: 71111 (IEE INSPEC CLASSIFICATION, The National Research Council of Canada, The British Library, PERIODICA...)

**15. T.BENSLIMANE, ALIOUANE, B.CHETATE;** «Implementation of SVPWM based on Hysteresis control strategy applied on autonomous parallel active filter », published in the International Journal of Emerging Electric Power Systems, Vol. 4: No. 1, Article 1085. 2005.

16. **B. Chetate, R. Bradai** (2006).” Minimum Practical Action Time of a Robust Fuzzy Speed Controller for Induction Machine Drive”, periodical of AMSE International, (IEE INSPEC CLASSIFICATION, INDEX DISPLAY: postings 54). (acceptance letter).

17. **B. Chetate, N. Kabache and A. N. Ladygin** (2006).” “Adaptive control of induction motor using artificial neural network with estimation of rotor flux”, article accepted in Elektrotechnika Journal.

18. **T.Benslimane, B.Chetate** (2006) ; « Choice of Input Data Type of Artificial Neural Network to Detect Faults in Alternative Current Systems», American Journal of Applied Sciences, 3(8): 1979-1983, Science publications, 2006, ISSN 1546-9239

19. **A.V. Chermalikh, B. Chetate, I.Ia. Maidansky, A. Kheldoun** (2006).”Fuzzy logic – based controller for position regulation of electric drives”, periodical of AMSE International, (IEE INSPEC CLASSIFICATION, INDEX DISPLAY: postings 54). (acceptance letter).

20. **T.Benslimane, B.Chetate** (2006) .”A new diagnostic method of faulty transistor in a three phase inverter”, Journal of Electrical & Electronic Engineering”, volume: 6, n°2, 2006, pp.117-128.

21. **B. Chetate, N. Kabache** (2006). “Adaptive control of induction motor with unknown motor resistance “,periodical of AMSE (acceptance letter).

## ***2.Acts and proceedings published***

1. H.Labar, K.Bounaya, **B. Chetate**, T.Mesbah; "Control of Transient Over-Voltage at Customers Buses due to the switching capacitors", the Journal of the Extendable Energies (Revue des Energies Renouvelables ) / proceedings of the first International Conference on the Energy Efficiency/ ISSN 1112-2242, pp. 462-468, 2003.

2. R. BRADAI, **B. CHETATE** ;" Application of the neurone – fuzzy technique for the minimisation of MF of asynchronous machine fuzzy speed regulator ", the Journal of the Extendable Energies (Revue des Energies Renouvelables) / *proceedings of the first International Conference on the Energy Efficiency/ ISSN 1112-2242, pp. 428-434, 2003.*

3. N. KABACHE, **B. CHETATE** ; "Adaptive Nonlinear Control of an Asynchronous Machine using *Neurone Networks Driven in Real Times*", the Journal of the Extendable Energies (Revue des Energies Renouvelables) / Proceeding of the First International Conference on The Energy Efficiency / ISSN 1112-2242, pp. 457-463, 2003.

4. Dj. KHODJA, **B. CHETATE** ; " *Real Time* Diagnostic of a set of electronic converter asynchronous motor faults and result comparisons of three artificial neurone networks ", the Journal of the Extendable Energies (Revue des Energies Renouvelables) / Proceedings of the First International Conference on The Energy Efficiency / ISSN 1112-2242, pp. 457-463, 2003.

5. A. Kheldoun, **B. Chetate**, “Energy loss optimization of a cage asynchronous motor controlled by the oriented rotor field technique”, the Journal of the Extendable Energies (Revue des Energies Renouvelables) / Proceedings of the First International Conference on The Energy Efficiency / ISSN 1112-2242, pp.422-427, 2003.

6. **T.BENSLIMANE, K.ALIOUENE, B.CHETATE**; (2006) “Voltage and current disturbances elimination with reactive power compensation using unified power quality conditioner”, International Symposium on Power

Electronics, Electrical Drives, Automation and Motion, SPEEDAM-2006, Taormina (Sicily). Italy , 23-26 May, 2006, pp.26-34, **IEEE CNF 1-4244-0194-1/06/2006 IEEE.**

**7. D. KHODJA, B. CHETATE,** (2005) “Development of Neural Networks module for fault identification in asynchronous machine using various types of reference signals”, 2<sup>nd</sup> International Conference PHYSICS and CONTROL, PP 537-542, August, 24-26, Physcon 2005, Saint Petersburg, Russia, **IEEE CNF 0-7803-9235-3/05/2005 IEEE.**

**8. T.BENSLIMANE, B.CHETATE;** (2005) “Digital Calculation of Frequency of Periodical Signal (Sinusoidal and Triangular)”, The Sixth IEEE International Siberian Conference on Control and Communications SIBCON-2005. TOMSK, RUSSIA , October 21-22, 2005, **IEEE CNF 0-7803-9219-1/05/2005 IEEE, pp.146-151.**

### ***Chapter in a book or Booklet***

“ Perspectives of the use of the solar energy in Algeria”, Edited by National Institute of Hydrocarbons and Chemistry (Algeria), 100 p, 1984.

### ***International Conference Papers***

<b>Entitled</b>	<b>Date and place of presentation</b>	<b>Promoter of the meeting</b>	<b>References of the journals or proceedings</b>
<b>Authors: B.CHETATE, M.S.BOUMEDINE,</b> On the application of the techniques of the artificial intelligence in electrical engineering,	16-17 September 1995	School of Instructors' Training, Tunis, (Tunisia)	Proceedings of the second Maghreb Convention in Electrical Engineering (CMGE'95), Volume II, pp. GLI 11-GLI 16,
<b>Authors: B.CHETATE, A.LEBAROUD,</b> Development of an automated system of forecasting and diagnosis of the anomalies,	16-17 September 1995	School of Instructors' Training, Tunis, (Tunisia)	Proceedings of the second Maghreb Convention in Electrical Engineering (CMGE'95), Volume II, pp. GLI 17-GLI 20
<b>Authors: B.CHETATE C. KARA, ,</b> Application of the artificial intelligence techniques for the choice of the motors sets, converters, and the control	13-15 September 1995, Grenoble (France)	Ecole Nationale Polytechnique de Grenoble (France)	proceedings of Mediterranean Conference on Electronics and Automatic (MCEA'95), pp. 825-831
<b>Authors: B.CHETATE, A. LEBAROUD</b> Elaboration of an acquisition system, of information processing and interpretation for the breakdowns' diagnosis.	13-15 September 1995, Grenoble (France)	National Polytechnic School of Grenoble (France)	proceedings of Mediterranean Conference on Electronics and Automatic (MCEA'95), pp. 685-690
<b>Authors: B.CHETATE, C. KARA, M.FENNECHE,</b> Expert system for the choice of the variable-speed drives	13-15 September 1995, Grenoble (France)	National Polytechnic School of Grenoble (France)	proceedings of Mediterranean Conference on Electronics and Automatic (MCEA'95), pp. 731-736
<b>Authors: B.CHETATE, A. LEBAROUD, M.A. AITOUICHE, M.S. BOUMEDINE</b> Elaboration of an automatic system for the breakdown diagnosis of the electrical machines, converters and control.	September 17, 18 and 19 1996	International Association of Modelling and Simulation of Electric Machines, Converters and Systems, Saint-Nazaire- France	Proceedings of the 5th International Conference one Modelling and Simulation of Electric Machines, Converters Systems and (ELECTRIMACS '96, Flight. 3/3, pp.1061-1065.

<b>Authors: B.CHETATE, A. LEBAROUD</b> About real-time intelligent failure diagnosis of electromechanical systems	29-30 April 1997	University of Guelma Hammam Debagh - Guelma (Algeria)	Proceedings of the third Maghreb Days on Mechanics, (Algeria), Volume I, pp.404-409
<b>Authors: B.CHETATE</b> Automatic diagnosis of electromechanical system anomalies.	December 07-09, 1997	University of Batna (Algeria)	Proceedings of International Annual Conference of the University of Batna (IEEA'97), pp.289-293
<b>Authors: B.CHETATE, A. LEBAROUD</b> Interpretation module elaboration of information and its application for the recognition of asynchronous motor faults	December 07-09, 1997	University of Batna (Algeria)	Proceedings of International Annual Conference of the University of Batna (IEEA'97), pp.94-97
<b>Authors: A. KHELDOUN, B. CHETATE</b> Indirect oriented rotor flux control of an induction machine with adaptation of rotor time constant by fuzzy logic	November 2000	University of Boumerdès (Algeria)	Proceedings of first International Conference on Electrical Engineering, ICEE'2000
<b>Authors: B.CHETATE, A.GROUNE,</b> Rationalization Politics of the energy use in Algeria: existing situation and development perspectives (in Russian language)	15-18 April 2002	Moscow Power Engineering Institute, Moscow (Russia)	Proceedings of First Russian Conference Energy saving: theory and practice, vol.1, pp.111-119.
<b>Authors: B.CHETATE, A.GROUNE,</b> Some Elements of the Energizing politics in Algeria	15-18 September 2003	Departement of Mine Affairs (U.A.P), Moscou (Russia)	Proceedings of the Second International Conference. <i>ISBN: 5-209-01736-2</i> , pp.9-10 (Plenary, pp. 9-10)
<b>Authors: A. Khodja, B. Chetate,</b> ANN system for identification and localisation of failures of anatomized electric asynchronous drive	March 11-13 2004	Near East University (Nicosia)	2 <sup>nd</sup> international symposium on electrical, electronic and computer engineering, pp.112-117 <i>ISBN:975-8359-32-0</i>
<b>Authors: H.Labar, K.Bounaya, B.Chetate, T.Mesbah</b> Control of Over-Voltage due to capacitors banks at customers systems	March 11-13 2004	Near East University (Nicosia)	2 <sup>nd</sup> international symposium on electrical, electronic and computer engineering, pp.112-117 <i>ISBN:975-8359-32-0</i>
<b>Authors: A. Kheldoun, B. Chetate,</b> Model Based Minimization of Power Loss in Vector Control Induction Machine	March 11-13 2004	Near East University (Nicosia)	2 <sup>nd</sup> international symposium on electrical, electronic and computer engineering, pp.112-117 <i>ISBN:975-8359-32-0</i>
<b>Authors: B.CHETATE, A. Kheldoun, Dj.Khodja, N.Kabache,</b> Energy saving by using artificial intelligence for specification, control and diagnosis of electric drives with induction machines	May 27-29 2004	Near East University (Nicosia)	International Conference on computational intelligence, pp.44-49 <i>ISBN:945-8359-33-9</i>

<b>Authors:</b> H.Labar, K.Bounaya, <b>B.Chetate</b> , T.Kelaia Power factor correction and magnification of the transient over voltage	5-7, July 2004	Lyon (France)	MS'2004
<b>Authors:</b> <b>B. CHETATE</b> , <b>N. KABACHE</b> , <b>A. KHELDOUN</b> , <b>R. BRADAI</b> , <b>A.V. CHERMALIKH</b> , <b>I.Ia. MAIDANSKY</b> , <b>M. OMRANI</b> « New Energetic Performances of Electrical Drives By Using Artificial Intelligence »	15-18, June 2005	Yildiz University, Istanbul (Turkey)	INISTA 2005, International Symposium on Innovation in Intelligent Systems and Applications, pp. 33-37.  <u>ISBN: 975-461-400-8</u>
<b>Authors:</b> <b>B.CHETATE</b> , <b>M.T.BELASSEL</b> , <b>T.BENSLIMANE</b> , <b>DJ.KHODJA</b> , <b>M.OMRANI</b> «Reliability Improvement of Induction Motor Electric Drives»	15-18, June 2005	Yildiz University, Istanbul (Turkey)	INISTA 2005, International Symposium on Innovation in Intelligent Systems and Applications, pp. 44-48.  <u>ISBN: 975-461-400-8</u>
<b>Authors:</b> <b>Dj. KHODJA</b> , <b>B. CHETATE</b> , « Development of Neural Networks module for fault identification in asynchronous machine using various types of reference signals»	August, 24-26, 2005	St Petersburg, Russia.	Physcon'2005, 2 <sup>nd</sup> International Conference PHYSICS and CONTROL, PP 537-542.;  <u>IEEE Xplore</u>
<b>Authors:</b> <b>N.KABACHE</b> , <b>B.CHETATE</b> , «Neural Network Estimator for Induction Motor Rotor Resistance»	2005	Cambridge, USA.	IASTED International Conference on Intelligent systems and Control.
<b>Authors:</b> <b>T.BENSLIMANE</b> , <b>B.CHETATE</b> ; « Digital Calculation of Frequency of Periodical Signal (Sinusoidal and Triangular) »	October 21-22, 2005	TOMSK, RUSSIA	The Sixth IEEE International Siberian Conference on Control and Communications SIBCON-2005.

### *National Conference Papers*

<b>Entitled</b>	<b>Date and place of presentation</b>	<b>Promoter of the meeting</b>	<b>References of the journals or proceedings</b>
<b>Authors:</b> <b>B.CHETATE</b> Numerical simulation of the uncertain state asynchronous motors' operation and elaboration of a computer aided design C.A.D system allowing the choice of the optimal working states of these motors,	07-08 November 1995	University of Guelma (Algeria)	Proceedings of Conference on Modelling and Simulation in Electrical Systems (CMSES'95), pp.137-143
<b>Authors:</b> <b>M.S.HADDAG</b> , <b>B.CHETATE</b> , Development of a process and a numeric device of couple indirect measurement	07-08 November, 1995	University of Guelma (Algeria)	Proceedings of Conference on Modelling and Simulation in Electrical Systems (CMSES'95), , pp.342-349
<b>Authors:</b> <b>B.CHETATE</b> , <b>A.LEBAROUD</b> , Contribution study of a breakdown diagnosis automated system by state numerical simulation of the for lack of an asynchronous motor.	07-08 November, 1995	University of Guelma (Algeria)	Proceedings of Conference on Modelling and Simulation in Electrical Systems (CMSES'95), , pp.342-349

<b>Authors: B.CHETATE</b> Elaboration of an expert system allowing the rational choice of asynchronous motors.	07-08 November, 1995	University of Guelma (Algeria)	Proceedings of Conference on Modelling and Simulation in Electrical Systems (CMSES'95), pp. Pp.163-169
<b>Authors: B.CHETATE, C. KARA,</b> Elaboration of the explanation and justification module of the reasoning decision help system IES/CEM by numerical simulation of the chosen motor working states	23-24 may , 1995	I.N.H.C, Boumerdès (Algeria)	Acts of the First Scientific and Technical Days of the I.N.H.C (JST'95), pp. 267-273.
<b>Authors: B.CHETATE</b> Optimization of the electromechanical system structures and parameters - energy saving factors.	25-26 November, 1996	Algerian committee of the energy, Algiers (Algeria)	Proceedings of the 1st Symposium of the Algerian energy Committee: The energy Sector in Algeria facing the Challenges of the 21st Century, 4th N°4.6 session
<b>Authors: B.CHETATE, B.LEBAROUD</b> About real-time intelligent failure diagnosis of electromechanical systems	29-30 April 1997	University of Guelma Hammam Debagh - Guelma (Algeria)	Proceedings of the third Maghreb Days on Mechanics, (Algeria), Volume I, pp.404-409
<b>Authors: A. LEBAROUD, B.CHETATE,</b> Numerical simulation study of voltage ac inverter feeding an asynchronous motor behaviour with different PWM strategies	05 -06 May 1997	I.N.H.C Boumerdès, (Algeria)	Acts of the 2 <sup>nd</sup> Scientific and Technical Days of the I.N.H (JST'97), pp. 381 - 384.
<b>Authors: M. S. HADDAG, B.CHETATE,</b> Architecture development of an indirect numerical torque measurement system and its operation by numerical simulation	05 - 06 May 1997	I.N.H.C Boumerdès, (Algeria)	Acts of the 2 <sup>nd</sup> Scientific and Technical Days of the I.N.H (JST'97), pp. 381 - 384.
<b>Authors: B.CHETATE, N. KABACHE,</b> Vector control of an asynchronous motor by application of the artificial neurone networks	May 2000	Faculty of Hydrocarbons and Chemistry, University of Boumerdès, (Algeria)	Proceedings of International symposium on Hydrocarbons and Chemistry
<b>Authors: B.CHETATE, Dj. KHODJA,</b> Automatic diagnosis system of electromechanical system failures by application of artificial neurone networks	May 2000	Faculty of Hydrocarbons and Chemistry, University of Boumerdès, (Algeria)	Proceedings of International symposium on Hydrocarbons and Chemistry
<b>Authors: M.S.HADDAG, B.CHETATE,</b> Study of a disturbance observer and its application for the digital indirect measurement system of DC motor torque	October 23-24, 2000	Algerian oil Institute (IAP), Boumerdès (Algeria),	Proceedings of first Instrumentation and Measurement in petroleum applications Conference, IMPAC-2000, <u>ISSN: 1112-3001</u> , PP.208-214
<b>Authors: B.CHETATE</b> Methods and means of rationalization of the electric energy use in the industrial enterprises	14-15 November, 2000	El-Aurassi (Algiers), (Algeria)	Proceedings of the 2nd Symposium of the Algerian energy Committee: Energy use rationalization of the of the (Economy of energy and Environment)

### ***Professional Activities***

<b>Function</b>	<b>Period of activity</b>	<b>Enterprises or Organisms</b>	<b>References of the nomination texts</b>
Director	Since September 2000	Research Laboratory on the electrification of the Industrial Enterprises / University of Boumerdès, Algeria.	Ministerial decree / MESRS
Expert Consultant	2001	Expert consultant of the National agency of Development of the Academic Research (ANDRU)	Contract / ANDRU
Expert consultant	April – May 1999	Energizing pre-audit of the Cement factory of Ech-Chlef (April - May 1999)	Contract / National Agency for the Rationalization of the energy use
Expert consultant	May – Sept. 1998	Diagnosis of the electric and automatic facilities of the Cement factory of Meftah, Algeria	Contract/ ERCC
Expert consultant	May – June 1996	Diagnosis of the twelve Cement Algerian factories for the account of the Ministry of the industry and the restructuring, National Enterprise of Research and of Development of the Construction Materials (ENDMC)	Contract/ ENDMC
Department Head	1997	Department of Electrical Engineering	General Director decision, National Institute of Hydrocarbons
Head of Option	1993-1994	Option of electro mechanics	General Director decision, National Institute of Hydrocarbons
Chief of the Research team	From Sept. 2000 To present	Savings of the Electric energy (Mastery of the energy) / Laboratory of Research on the electrification of the Industrial Enterprises	University of Boumerdès, Algeria
Associate Researcher	1994	Development of the Specifications of an Expert System of Industrial Maintenance for the account of the Cement factory of Meftah, Algeria	Contract / Centre of Development of the Advanced Technologies (CDTA), Algeria



## ***Defended Works***

### **1. In Undergraduate**

Type	Entitled	Name and rank of Research Director	Date of Defence	Mention
State Engineer	<i>Renovation of the electric supply system of the natural liquefied gas factory (GLI/K), Skikda, Algeria and studies of the industrial applications of the solar facilities</i>	Associate Professor (Russia)	June 1984	Congratulations

### **2. In Graduate**

Type	Entitled	Name and rank of Research Director	Date of Defence	Mention
PhD in Technical Sciences	Development of methods and algorithms allowing the rational choice of the electric drive motors	Leonid Alekseevitch ILIACHENKO, Docent	08/12/1998	Excellent

## ***Graduate Courses Attended***

- Theory of Electrical drives, Moscow Power Engineering Institute, 1985-1986;
- Control and regulation of electric drives, Moscow Power Engineering Institute, 1985-1986;
- *Systems of computer aided design*, Moscow Power Engineering Institute, 1985-1986;
- *Theory of automatic control*, Moscow Power Engineering Institute, 1985-1986;

### ***Summary of Qualifications:***

- *July 2004 – Present :* *Professor Doctor*
- *Dec. 1998 – July 2004:* *Associate Prof. Dr.*
- *Sept. 1994 – Dec. 1998:* *Assistant Prof. Dr. Lecturer.*
- *Nov. 1990 – Sept. 1994:* *Assistant Prof. Dr.*
- *Jan. 1985 – an. 1990* *R & D Engineer*
- *Jan. 1987 – Feb. 1990* *Ph.D. Candidate*

### ***Administrative Positions***

- *July 2000 – Present:* *Director of L.R.E.I.E. Research Laboratory.*
- *1994–1995:* *Head of Electromechanical Option.*
- *1994–1998* *Head Post Graduate Program*
- *1997– 1998:* *Head of Electrical Engineering Department.*

### *Undergraduate and Graduate Courses Taught*

Academic Year	Institutes and Universities	Faculty or Institute	Courses Taught	Lecture	Laboratory	Recitation
1990-2005	INHC, Boumerdès  INMC, Boumerdès  University of Boumerdès	- -  Faculty of Hydrocarbons and Chemistry	1. Control and Electric Drives (UG)	*	*	*
			2. Industrial Electric Equipments (UG)	*	*	*
			3. Theory of Electric Drives (UG)	*	*	*
			4. Data processing applied to the industry (UG)	*	*	
			5. Energy Savings (G)	*		

## **E) Supervised Theses**

### **1. In Graduate Studies**

#### **A. Scientific Defence of State Doctorate Thesis:**

LABAR Hocine, "Determination and control of the impact of the manoeuvres of the compensation batteries on the over voltages and the transient over currents", July 2004, University Badji Mokhtar - Annaba, Algeria.

BELASSEL Mohand Tahar, "Étude des processus ondulatoires et des surtensions dans les moteurs asynchrones alimentés par des convertisseurs à semi-conducteurs», May 2006,. University of Tizi Ouzou - Algeria.

#### **B. Defences of Master degree Theses:**

1. LEBAROUD Abdessalem, automatic diagnosis of asynchronous motor, June 1997, National Institute of Hydrocarbons and Chemistry, Boumerdès, Algeria.

2. HADDAG, Indirect Measurement of the load couple of an electric motor by an observer. Application to the direct current motors with separated excitation and to elastic mechanical link", Sept. 2000, Laboratory of Research on the Electrification of the Industrial Enterprises, University of Boumerdès, Algeria.

3. KABACHE; " Adaptive non-linear control of an asynchronous machine using two "artificial neuron networks, April 2001, Laboratory of Research on the Electrification of the Industrial Enterprises University of Boumerdès, Algeria.

4. KHELDOUN; "Vector Control of a cage asynchronous with total losses minimisation and logic fuzzy adaptation rotor resistance", Research Laboratory on Electrification of Industrial Enterprises, Boumerdès University, June 2001.

5. KHODJA; "Development of the diagnosis automatic system of the induction machine failings using artificial neuron networks", June 2001, Laboratory of Research on the Electrification of the Industrial Enterprises University of Boumerdès, Algeria.

6. Louanchi Malika, "Optimisation des régimes de fonctionnement d'un moteur asynchrone à cage entraînant une charge variable", 2007, University of Tizi Ouzou, Algeria.

## **2. In Undergraduation** **Defences of Final Year Projects (since 1997):**

1. KACI; "STUDY and optimization of the practice and the electric control of a regulation valve (thermal power station of Jijel) " Algeria, I.N.H.C. ,1997.
2. SAKHRI; «Analysis and diagnosis of the maintenance function in order to optimize the availability of the facilities within a complex of detergents ", I.N.M.C., 1997.
3. AYADI, Contribution to the development of a maintenance management system of computer aided of the electric motors of the DP/R.E.B ", I.N.H.C., 1997.
4. BOULANOUAR, Development of the elements of a system of automatic diagnosis of synchronous machine failings", I.N.M.C., 1997.
5. IDIR, "Application of artificial intelligence techniques for the optimization of the technological process of mill ", I.N.I.M., 1997.
6. SOUILAH, "Control by an industrial programmable automaton of the chain to cups (ZEIDLER) of the E.C.V.E - Guelma ", I.N.M.C., 1997.
7. GATTAL, MAMERI, "Elaboration of a system of C.A.D allowing the rational choice of the electric converters-motor system and controls", I.N.H.C., 1997.
8. BELARFAOUI, BOUCHOU; "Methods and means of the electric energy savings in a cement factory, case of application,: the cement factory of Rais-Hamidou ", University of Boumerdès, I.H.C, 1998.
9. TEMIMI; "Automation by A.P.I TSX 67.40 of the group cut-out / rectifier of the unit of KREBS electro coloration of the complex GL1/K (Skikda) ", University of Boumerdès, I.H.C, 1998.
10. YOUSFI, BOUCHARAKOR; "Automatic control of the parameters of an asynchronous motor by the technique of the artificial neurons networks", University of Boumerdès, I.M.C, 1998.
11. AMELLAL, BELDJOUDI; "Study and choice of the facilities allowing the electrification of a solar village of the south of Algeria", University of Boumerdès, I.H.C, 1998.
12. RAHALI; "Automation of the production line of the pitchforks of the complex GERMAN of the fork-lifters of Ain-Smara (Constantine) ", University of Boumerdès, I.H.C, 1998.
13. OULD-SDIVE; "Application of the artificial neurons networks for the diagnosis of an asynchronous machine failings", University of Boumerdès, I.M.C, 1998.
14. M.KHADER; "Methods and Means of rationalization of use of the electric energy to the cement factory of Meftah", University of Boumerdès, I.H.C, 1999.
15. F.REBIAI, A.GUENDOZ; "Methods and means of electric energy savings in a factory of ceramics, case of application,: the "Amirouche briquetterie, University of Boumerdès, I.H.C, 1999.
16. A.O. BOUREKOUA, A.AMAR; "Development of the automatic system of diagnosis of the asynchronous machines failings by application of the technique of the artificial neurons networks", University of Boumerdès, I.H.C, 1999.
17. S.A.ZAGOUG; "Development of the automatic system control of the asynchronous machine by application of the artificial neurons networks ", University of Boumerdès, I.H.C, 1999.

### ***SCIENTIFIC INTERESTS:***

- *Energy saving & economic policy*
- *Electrical drives*
- *Artificial Intelligence*
- *Automatic Diagnosis*
- *New and renewable Energies*

### *Scientific research projects*

<b>Project Titled</b>	<b>Position</b>	<b>Date of Agreement</b>	<b>Number of years allocated</b>
Energy Savings	Project Chief	01/01/1993	02
Expert system of industrial maintenance for the facilities of the Cement factory of Meftah	Project Chief	1994	01
Expert system of industrial maintenance	Project Chief	01/01/1995	02
System of help to the decision permitting the rational conception and the exploitation of the industrial facilities	Project Chief	01/01/1997	02
Development of a Complete Intelligent System Permitting the Rationalization of the use of the Electric energy in the Industrial Enterprises	Project Chief	01/01/2001	02
Development of a Complete Intelligent System Permitting the Rationalization of the use of the Electric energy in the Industrial Enterprises; case of application: cement industry, oil industry, textile industry	Project Chief	01/01/1998 National Research Project (PNR1)	03
Methods and means of the energizing efficiency	Project Chief	01/01/2004	02
Energy saving by using artificial intelligence for control and diagnosis of induction motor	Project Chief	01 /01/2005	03
Design optimization and exploitation of Algerian made motors (Enterprise ElectroIndustries)	Project Chief	01/01/2006	03

### *Scientific membership*

<b>Position</b>	<b>Domain</b>	<b>Years</b>	<b>Observations</b>
Executive Managing Editor	International Journal of Electrical and Power Engineering (IJEPE) –	Since 2006	Medwellonline
Member of the Scientific Committee	Journal of Communication, Science and Technology	Since 2005	ENSET
Member of the Scientific Committee	The International Symposium on INnovations in Intelligent SysTems and Applications INISTA'2007	June 2007	Yildiz Technical University, Istanbul , Turkey
Member of the Editorial Board	The Journal of Engineering and Applied Sciences	Since 2006	Medwellonline
Member of the Editorial Board	The Asian Journal of Information Technology	Since 2006	Medwellonline
Member of National Pedagogic Council of Electrotechnic	National Pedagogic Council	Since February 2005	Ministry of High education and Scientific Research of Algeria
Member of Scientific	Scientific Council	1993-present	National Institute (Faculty) of

Council			Hydrocarbons and Chemistry
Member of the Scientific Committee	Second International Symposium on Electrical, Electronic and Computer Engineering	Nicosia (Cyprus), 11-13 March 2004	Near East University
President of the Conference	International conference on the Energising efficiency (ICEE'2003)	Algiers (Algeria) 25 - 26 May 2003	- University of Boumerdès (Algeria) - Moscow Power Engineering Institute, (Russia).
Member of the Scientific Committee	International Journal of the Extendable Energies ISSN 1112 - 2242	2000-2002	Scientific sponsorship: World Solar UNESCO-Program
Member of the Committee	Algerian - French group on the Mastery of the energy	2002	Ministry of the energy and Mines – APRUE
Member of the Scientific Committee	Journal of Communication, Science and Technology ISSN 1112 - 5187	Since November 2005	ENSET –Oran (Algeria)
Temporary member of the Committee	Periodical of AMSE International	2000-2003	France
President of the Scientific Committee	Seminary on the automation and the electrification of the Industrial Process	Boumerdès (Algeria) 1999	University of Boumerdès
Member of the Scientific Committee	International symposium on the Hydrocarbons	Boumerdès (Algeria) 2000	University of Boumerdès
Member of the Scientific Committee	Conference on the Techniques of the High Voltage (CNHT'99)	Guelma (Algeria)	University of Guelma
Member of the Scientific Committee	International conference on Power Engineering	Oran (Algeria) 1998	University of Sciences and Technology (USTO), Oran, Algeria
Member of the Scientific Committee	International conference of the university of Batna (IEE'97)	Batna (Algeria) Dec. 1997	University of Batna
Member of the Scientific Committee	Days of study on the solar energy	Batna (Algeria) May 1997	Ministry of the energy and Mines
Member of the Scientific Committee	Days of study on the New and Extendable Energies	ENA/Algiers (Algeria) 1996	Ministry of the energy and Mines
Member of the Scientific Committee	Seminary on Power Engineering	Biskra (Algeria) 1995	University of Biskra
Member of the Scientific Committee	Scientific and Technical days of the INH	Boumerdès (Algeria), 1994	National Institute of Hydrocarbons and Chemistry

**Languages Known:**

*Arabic: Read, Write, and Speak (Fluently)*

*English: Read, Write, and Speak (Average)*

*French: Read, Write, and Speak (Fluently)*

*Russian: Read, Write, and Speak (Fluently)*