

## CURRICULUM VITAE

**Christian Lambert NGUENA, PhD (Associate-Professor in Economics).**

**Born on 22/10/1982 at Yaounde; Married with 3 children**

**Top 10% scientific authors in Cameroun, IDEAS REPEC classification**

<https://ideas.repec.org/top/top.cameroun.html#png162>

### **SHORT BIOGRAPHY**

Highly experienced, multi-lingual and well-trained development economist with over 14 years' experience in leading and managing multidisciplinary and professional teams, designing, implementing and advising on development and research programs and projects. Interesting combination of analytical, strategic and technical perspectives gained at the African Development Bank, the World Bank, the Nordic Africa Institute, the European Commission, the African Development Bank, the United Nations, and the African Capacity Building Foundation. Excellent leadership skills and strong ability to empowers others to translate vision into results. Strong drive for results. Good communication, writing and analytical skills.

### **PERMANENT ADDRESS**

S/C University of Dschang. Dschang – Cameroon. **Tel.:** + (237) 675 716 805. **Email:** [lambert.nguena@univ-dschang.org](mailto:lambert.nguena@univ-dschang.org)

### **EDUCATION BACKGROUND**

**2009-2014 PhD, Economics** – University of Yaounde II, Cameroon. **Title of Doctoral Thesis:** *Financial policies, macroeconomic shocks management, and financial deepening. 2015 CEDIMES Prize Nominee among the Best Doctoral Thesis (International Jury of 21 worldwide Professors).*

**2006-2008 D.E.A. (In-Depth MSc with thesis), Economics (With distinction)** – Econometrics and Mathematical Economics. University of Yaoundé II, Cameroon. **Thesis title:** *Credible Monetary Policy and Economic Growth.*

**2004-2005 MSc 1, Economics (With distinction)** – Money-Banking-Finance. University of Yaounde II (Soa), Cameroon.

**2001-2004 BA, Economics** – Money-Finance-International economics. University of Dschang, Cameroon.

### **AWARDS, FELLOWSHIP and PRIZE**

#### **PRICE & HONORS**

- 2021 Laureate of the Highest Continental Contest in Higher Education (“*Concours d’Agrégation CAMES*”) - Benin;
- 2021 Visiting Professor at the University of Huelva (ERASMUS Plus) - Spain;
- 2021 Selected as a France-Africa Young leader - France;
- 2020 Member of the Pan-African Scientific Research Council - USA;
- 2018 Visiting Researcher at the Nordic African Institute – Sweden;
- 2015 Doctorate / PhD Thesis Nominated to 2015 CEDIMES Price (VIII<sup>ème</sup> edition) – France;
- 2014 Award to African Young Economist – International Economic Association - USA;
- 2014 Grant for participation and communication at a « Research workshop » of BEAC;
- 2013 Member – Young African Leaders Initiative Network (Mandela Washington Fellowship) – USA;
- 2013 Expert: Youth Partnership between the European Commission and European youth Council;
- 2011 Grant «*Young Researcher*» - African Econometric Society;
- 2011 Fellowship for contribution to knowledge - World Business Institute – Australia;
- 2010 Scholarship for admission to the PhD program at Université de Laval – Canada;
- 2000 Baccalaureate Scholarship, Ministry of Higher Education of Cameroon.

#### **FELLOWSHIP, SCHOLARSHIP & RESEARCH GRANTS**

- 2021 AfDB Senior Consultant – South Africa; (6 months);
  - 2020 AERC research grant – Kenya; (*Ongoing*);
  - 2014 Research Program of the WORLD BANK – USA; (7 months);
  - 2014 AERC research grant – Kenya; (2 years);
  - 2013 BEAC travel grant (Banque des Etats de l’Afrique Centrale) participation to a research meeting ;
  - 2012 Trust Africa / CRDI research grant – Sénégal / Canada; (2 years);
  - 2011 Research Program of UNITED NATIONS– Economic Commission for Africa ; (9 months);
  - 2009 Research grant at the UNIVERSITY OF FRIBOURG - Switzerland; (9 months);
- Winner of several travel funding for participation in international workshops.*

## **PROFESSIONAL BACKGROUND EXPERIENCE**

<b>RESEARCH/OPERATION EXPERIENCE (14 YEARS)</b>	
March 15th 2022 ( <i>Full time</i> )	<b>Discussant</b> - Part of the team of the MOU between "Institut Supérieur de Technologies (IST)" of Gabon and the University of Dschang of Cameroon: In the delivery review of the MOU and discussions about the implementation.
Since 2021 ( <i>Full time</i> )	<b>Member of the Scientific Committee of the Dschang School of Economics and Management (DSEM).</b> Responsibilities and achievements: Proposition of the selection of MSc and PhD Students. Organization of training programs and creation of new specialities.
04/2022 to ( <i>Full time</i> )	<b>Visiting Professor – University of Huelva (Spain).</b> Contributing to the academic activities of the Faculty of Economics (Lecture and research).
March 10 <sup>th</sup> – 13 <sup>th</sup> 2021	<b>Chief in charge of the ISPB sub-centre</b> - Responsible for organising the first-semester normal session exams for the professional undergraduates in the sub-centres of the IPES as the chief of the centre.
01/2022 to 07/2022	<b>Quality Assurance &amp; Reporting Consultant: AFRICAN DEVELOPMENT BANK /</b> Southern Africa Regional Development and Business Delivery Office, (RDGS)- South Africa:
Since 2021	<b>A member of the Scientific Committee of the Dschang School of Economics and Management.</b> Responsibilities and achievements: Proposition of the selection of MSc and PhD Students. Organization of training programs and creation of new specialities.
01/2020 to 07/2020 ( <i>Full time</i> )	<b>Visiting Researcher – The Nordic African Institute (Sweden).</b> Designing, monitoring, managing, leading, coordinating, and supervising a research project; writing policy brief along with financial, narrative, intermediate and final research reports. Teaching students.
10/2018 to present ( <i>Part-time</i> )	<b>Secretary-General – Cameroonian Academy of Young Scientists (CAYS).</b> Shall handle all correspondence of CAYS, in consultation with the President; Summon meetings of the CAYS and EC, on the instruction of the President or on a request endorsed by the majority (2/3) of members of the CAYS or EC as the case may be; Shall prepare the agenda for such meetings in consultation with the President; Shall keep the minutes of the meetings; Shall present an annual report of CAYS activities.
07/2016 to present ( <i>Part-time</i> )	<b>Consultant – Center for Affordable Housing Finance (CAHF).</b> Providing Housing Finance Sector country profile update and input for the Central Africa sub-region countries. Part of the yearly publication on the Housing financial sector in Africa.
02/2016 to 10/2016 ( <i>Part-time</i> )	<b>Research Editor – United Nations University-Institute for Natural Resources in Africa (UNU-INRA).</b> My main task was to assist in the developmental editing, substantive editing, proofreading, copyediting, copywriting, typesetting, and page layout for print products in support of the publication of final, peer-reviewed UNU-INRA research products.
03/2016 ( <i>Part-time</i> )	<b>Expert – African Capacity Building Foundation (ACBF).</b> Conception, realization et moderation of an exchange platform on economic and financial sector development subjects; production of several policy briefs.
2014 – 2017 ( <i>Part-time</i> )	<b>Expert evaluator: EUROPEAN UNION.</b> Evaluation of H2020 SMEs creation project. Based on a review of several documents submitted by the potential entrepreneur (Business plans...etc.), providing a score based on whether the European Union decides to finance or not.
03/2015 to 05/2016 ( <i>Part-time</i> )	<b>Consultant: THE WORLD BANK GROUP.</b> Wrote contributions on the Trade Facilitation/asset diversification/inclusive growth work of the Republic of Congo and other official documents (Research documents, concept notes, methodology ...etc.)

06/2014 to 01/2015 (Full time)	<b>Research Fellow: THE WORLD BANK GROUP – Washington DC, USA.</b> Main responsibilities: Wrote a research paper on “ <i>Housing finance, shared prosperity and poverty reduction</i> ” as a background paper for the 2015 Global Financial Development Report;
05/2014 to 11/2014	<b>Consultant (Full time): AFRICAN DEVELOPMENT BANK</b> (AfDB)/African Natural Resource Centre - Tunisia:
02/2013 to 03/2014	<b>Part-time Researcher: AERC</b> (African Economic Research Consortium). Research grant under the theme « <i>Financial Sector Reform and Development in Africa</i> ». Cameroon – Kenya.
05/2013 to 11/2013	<b>Consultant (Full time): AFRICAN DEVELOPMENT BANK</b> / African Development Institute - Tunisia:
03/2013 to 08/2013 (Part-time)	<b>National Consultant: UNECA (United Nations)</b> - ACGSD (African Center for Gender and Social Development) – Cameroon/Ethiopia; Main activities and deliverables: Assisted the program in researching, drafting, and publishing the 2013 Africa Youth Report by:
07/2010 to 07/2013 (Part-time)	<b>Lead Researcher: Trust Africa / IDRC</b> (International Development Research Centre) – Cameroon / Senegal; (Research Grant under topic: “ <i>SMEs and national economic policy: African SMEs and the formal banking sector</i> ”). Main duties and successful realization: Designed, monitored, managed, lead, coordinated, and supervised the project; wrote policy brief and financial, narrative, research intermediate, and final reports; designed and organized result dissemination to policymakers via conference; liaised with donors and partner institutions on research program funding issues, budget preparation, submission, and management. Management of a group of researchers.
06/2011 to 05/2012 (Full time)	<b>Research Fellow: UNECA (United Nations)</b> – Economic Development and NEPAD Division -Ethiopia; (Office of the Director). Main duties, responsibilities, and successful realization: <ul style="list-style-type: none"> <li>□ Contribution to all EDND knowledge products such as African Economic Report;</li> <li>□ Training workshop and conference organization (designing, drafting, monitoring...etc.);</li> <li>□ Personal scientific research paper submission, presentation, and dissemination.</li> </ul>
02/2009 to 09/2009 (Full time)	<b>Professional Intern: Afriland First Bank</b> Recruitment Program - Studies and Development Direction - Cameroon. 08-month practical training in all Commercial bank compartments (Front office, back office) with emphasis on Credit Analyst skill development.
09/2008 to 06/2011	<b>Research Intern:</b> “Part-time” Researcher intern, <b>General Tax Directorate</b> - Cameroon. Access to all compartments to collect data and documents for research purposes.
09/2009 to 06/2011 (Full time)	<b>Investigation Coordinator: Cabinet Vida Management-Cameroon.</b> Ministry of Higher Education Project on « <i>Etude sur l’identification, la mobilisation et les mécanismes de gestion de la logistique d’appui nécessaire à l’optimisation de la production universitaire au Cameroun</i> ». Administered a group of Surveyor and executed investigation for final report input.
<b>TEACHING &amp; LECTURE/ADMINISTRATION EXPERIENCE (13 YEARS)</b>	
2022 to present	<b>Head of Unit of Publications at the Vice Chancellor Office of the University of Dschang.</b> In charge of all publications of the Schools of the University of Dschang. Responsible of the constitution and protection of the scientific share of the University.
2021 to present (Full time)	<b>Coordinator of Master Program: the University of Dschang - Faculty of Economics &amp; Management (FSEG).</b> Organizing the Master's Program and reporting to the Dean.
2015 to present (Full time)	<b>Member of Jury for the following PhD and Master (Professional &amp; research):</b> 1) <b>29th-November 2021</b> was a jury member in a PhD defence: entitled “ <i>Effets de la globalisation sur les performances économiques et sociales des pays de la Zone franc</i> ” defended by Dongmo Tsojio Franklin at Dschang Doctorate school of economics.

2) **29th-November 2021** was a jury member in a PhD defense: entitled “Impact de la qualite des institutions sur la productivite agricole en Afrique Subsaharienne” defended by NGUIMATSIA NGUEUNA Helene at Dschang Doctorate school of economics.

2021 to present  
(Full time) **Vice President of the following Jury and Commission: Doctorate and Professional Bachelor level 2 jury & Exam mark expertise. The University of Dschang - Faculty of Economics & Management (FSEG).** Organizing exams and reporting to the Dean.

2015 to present  
(Full time) **Associate Professor - Researcher: the University of Dschang - Faculty of Economics & Management (FSEG).** Participating in student enrolment. Organizing and participating in the exam sessions. Assisting in giving lectures and tutorials. Professor of “*MICROECONOMICS*” (PhD 1), “*ADVANCED MONETARY ECONOMICS*” (PhD 1), “*BANKING CASH MANAGEMENT*” (Master 2), “*FINANCIAL SERVICES ECONOMICS*” (Master 1), “*ADVANCED MACRODYNAMIC*” (Master 1), “*SOCIAL SECURITY ECONOMICS*” (Master 1), “*ECONOMETRICS*” (Master 1), “*LABOR MARKET FOR HEALTH PROFESSIONALS*” (Master 1), “*GAME THEORY*” (Master 1), “*INTERNATIONAL MONETARY ECONOMICS*” (Bachelor 3), “*DISEASES DEPENDENCE ECONOMICS*” (Bachelor 3), “*ECONOMETRICS*” (Master 1), “*CAPITAL MARKET ECONOMICS*” (Bachelor 3) and “*DEVELOPMENT ECONOMICS*” (Bachelor 2). Tutor of “*MICROECONOMICS*” (Bachelor 1 & 2), “*MACROECONOMICS*” (Bachelor 1 & 2), “*GENERAL ECONOMICS*” (Bachelor 1 & 2) and “*STATISTICS*” (Bachelor 1 & 2). Organization of exams (from exam subject proposition to correction and mark report/publication). Supervising student research dissertations. Research and publications.

- **CRESA / FS / FLSH / FASA:** Professor of “*ENTREPRENEURSHIP*” (Licence 2), “*INTRODUCTION TO ECONOMICS*” (Licence 2), “*ENVIRONMENTAL ECONOMICS*” (Master 2), “*COST-BENEFIT ANALYSIS*” (Master 2), “*ECONOMICS OF NATURAL RESOURCES*” (Master 1).

2016 to present **Lecturer-Researcher: ICT University.** Giving lectures and tutorials. Professor of “*ORGANIZATIONAL LEADERSHIP: DOCTORAL THEORY AND PRACTICE*” (PhD), “*STRATEGIC MANAGEMENT*” (Master 2 & PhD), “*MICROECONOMICS*” (Master 1), “*ECONOMIC POLICY*” (Master 1), “*MANAGERIAL ECONOMICS*” (MBA & Bachelor 3) and “*STATISTICS*” (Bachelor 3). Organization of exams (from exam subject proposition to correction and mark report/publication). Supervising student research dissertations. Research and publications.

2010 to present **REMA (Research in Micro-Macro Economics) & the University of Dschang:** Assistant Researcher/Lecturer to Full Professor Roger TSAFACK NANFOSSO.

12/2009 to  
06/2011  
(Part-time) **Examiner: Ministry of Higher Education** – Cameroon. Ongoing examination control of quality for «*Economics*» subject during (Higher National Diploma) HND/HPD (Higher Professional Diploma) exams; submission of 04 subjects in “*General Economics*” for HND/HPD exams.

09/2007  
to 01/2015  
(Part-time) **Monitor / Researcher: University of Yaounde II Soa - FSEG / CERE** (Centre for studies and research in Economics and Management).

- Accomplished scientific funded research project on several economic issues;
- With the framework of funded / personal research projects I organized and/or participated in several international and national conferences and research Seminars;
- Giving tutorials (*MATHEMATICS; STATISTICS; ECONOMETRICS; MICROECONOMICS; MACROECONOMICS*), providing teaching assistance and organising student supervision for levels 1 to 4 students of the FSEG; Organised and coordinated exam and student evaluation.

09/2009 to  
present  
(Part-time) **Lecturer: HEC** (Hautes Etudes Commerciales), **University of Yaoundé Sud-Ndi Samba** and **ISSEA** (Institut Sous régional de Statistique et d’Economie Appliquée) – Cameroon; Responsibilities: Teaching, Student Counselling and research report supervision.

10/2011 (6 days)	<b>Expert: AFRICAN UNION-Pan African University</b> – Ethiopia. Participation in Pan African University (PAU) stakeholder curriculum validation workshop. Addis Ababa.
<b>PHD THESIS AND MASTER DISSERTATION SUPERVISED (Since 2016)</b>	
2021-2022	Designed as an academic supervisor of tutor projects for level 3 professionals in bachelor Finance and accounting programmes.
2021-2022	Master dissertation of NGEH ZEPHENIA Sanda entitled « <b>The impact of professional training on the quality of health services in Cameroon: Case of the Dschang District Hospital</b> »
2021-2022	Master dissertation of KWENE BLESS ESAH on “ <b>Sectorial linkages of financial services as a channel of sustainable growth; base on input-output analysis of Cameroon and Nigerian economy</b> ”
...	

## **SELECTED PUBLICATIONS**

### **Ranked, peer-reviewed, and international journal:**

- Nguena, C.L. (2022), “Remittances and Labour Market Multidimensional Inequality in Developing Countries: Impact and Transmission Channels”, *Review of Development Economics* (Forthcoming);
- Nguena, C. L. (2022), “Impact of housing finance on inclusive growth in Africa”, *Bulletin of Economic Research* (Forthcoming);
- Nguena, C. L. (2022), “On Recessive and Expansionary impact of financial development”, *Journal of Comparative Economics* (Forthcoming);
- Nguena, C. L. (2022), “On a Comparative Analysis of the Impact of Democracy on Regulatory Reform”, *European Journal of Comparative Economics*;
- Nguena, C. L. et al. (2022), “A new look at the growth-renewable energy nexus: Evidence from a sectoral analysis in Sub-Saharan Africa”, *Structural Change and Economic Dynamics*. <https://doi.org/10.1016/j.strueco.2022.04.013>;
- Nguena, C.-L. and F. Tchana Tchana & A. Zeufack, (2021) “On the Determinants of Housing Finance Development: Evidence from Sub Saharan Africa”, *Economics Bulletin*, Vol. 0 No. 0 p.A228.
- Nguena, C. L., Tchana Tchana, F. & Zeufack, A. (2021), “Housing Finance and Inclusive Growth in Africa: Benchmark, Determinant & Effect”, *International Economic Journal*, Vol. 35, Issue 2, PP. 259-287;
- Nguena, C. L. (2020a) "Workforce Productivity Growth and Inequality Reduction in Developing Countries: The role of Mobile Banking & Financial Services Development in Africa", *Economics Bulletin*, Volume 40, Issue 2, pages 1146-1158;
- Nguena, C. L. (2018), “On financial Innovation in Developing Countries: Mobile Banking & Financial Services Determinants in Africa”, *Journal of Innovation Economics and Management*, No. 56;
- Nguena, C. L. & Tsafack Nanfosso, R. (2015), “Importance des Politiques Financières dans la Croissance Economique en zone CEMAC : Approche en Données de Panel”, *African Development Review*: Vol. 27, No. 1, 2015, pp. 52–66 ;
- Nguena, C. L. & Tsafack Nanfosso, R. (2014a), “Banking Activity Sensitivity to Macroeconomic Shocks and Financial Policies Implications: The case of CEMAC Sub-region”, *African Development Review*, Vol. 26, No. 1, pp. 102–117;
- Nguena, C. L. & Tsafack Nanfosso, R. (2014b), “Déterminants Microéconomiques du Déficit de Financement des PME au Cameroun”, *African Development Review*: vol. 26, No. 2, 2014, pp. 372-383 ;
- Nguena, C. L. & Tsafack Nanfosso, R. (2014c), “On the Sensitivity of Banking Activity Shocks: Evidence from the CEMAC Sub-region”, *Economics Bulletin*, Vol. 34 N°=1, 2014, pp. 354-372;

### **Chapters in books, Proceedings, and other articles:**

- Nguena, C. L., (2013), “Heterogeneity of Saving-Investment Causality in WAEMU Zone and Fiscal Coordination Implications”, dans Diery Seck (ed.), *Regional Economic Integration in West Africa*, edited by Springer: 978-3-319-01281-0, Switzerland;
- Nguena, C. L. (2016), “Macroeconomic Factor and Dynamics of Financial Deepening: An empirical Investigation applied to the CEMAC Sub-region”, *Les Cahiers du CEDIMES*.
- Nguena, C. L. (2016), “Creative Industry development and reduction of youth employment in Cameroon: a social accounting matrix approach”, *NOVA SCIENCE PUBLISHERS, INC*.
- Tsafack Nanfosso, R. & Nguena, C. L. (2015), “What Drives and Limits Financial Deepening Dynamics? Fresh Empirical-Based Policy Lessons for African Sub-Regions”, *Econometrics*;

- Nguena, C. L. & Abimbola, T. M. (2014a), “Financial Deepening Dynamics and Implication for Financial Policy Coordination in a Monetary Union: the case of WAEMU”, Book Chapter, edited by **Macmillan Palgrave**;
- Asongu, S. & Nguena, C. L. (2014b), “Equitable and Sustainable Development of Foreign Land Acquisitions: what have we learned on policy syndromes and implications?” in Book on ***In-Country Determinants and Implications of Foreign Land Acquisitions*** edited by **IGI Global**;
- Nguena, C. L., Tchana Tchana, F. & Zeufack, A. (2016), “Housing Finance and Inclusive Growth in Africa: Benchmark, Determinant & Effect”, ***World Bank PRWP***, No. 7902, 31 pp.;
- Nguena, C. L. (2020b), “Macroeconomic Factor and Dynamics of Financial Deepening: An empirical Investigation applied to the CEMAC Sub-region”, ***Les Cahiers du CEDIMES***. Vol. 15, No. 4;
- Nguena, C. L. (2015), “Inclusive and Pro-poor Financial System in Africa: Does Islamic Finance Matter?”, **Beyond RIO + 20 Book Chapter**. (Forthcoming).
- Nguena, C. L. (2015b), “External Debt Origin, Capital Flight and Poverty Reduction in the Franc Zone: Does the Economic Consequences of Sino-African Relationship matter?”, **Book Chapter** (Forthcoming).
- Nguena, C. L. (2015c), “La Question de la réduction de l’Informalité des Activités Economiques des PME au Cameroun: l’importance de l’Inclusion Financière.”, **Book Chapter** (Forthcoming).
- Nguena, C. L., Tchana Tchana, F. & Zeufack, A. (2016), “Housing Finance and Inclusive Growth in Africa: Benchmark, Determinant & Effect”, **Book Chapter** (Forthcoming).
- Nguena, C. L. (2016), “Creative Industry development and reduction of youth employment in Cameroon: a social accounting matrix approach”, **NOVA SCIENCE PUBLISHERS, INC.**

### **Funded research reports:**

- (2008): “Regulation, SME Performance and Growth in Cameroon’s manufacturing and retail sectors”. (Research team member), **Trust Africa/IDRC**.
- Nguena, C. L. (2013), “Le déficit de financement des PME au Cameroun dans un contexte de crise financière”. **ICBE/TrustAfrica Rapport d’étude**. <http://www.trustafrica.org/Fr/component/grants/grant/43-ta-11-041>
- Nguena, C. L. & al. (2018), “Économie numérique et réduction de l’informalité des PME au Cameroun: Le rôle de l’inclusion financière.”, **Projet FIARD (Fond Institutionnel d’Assistance à la Recherche)** (Forthcoming)
- Nguena, C. L. (2020), “Financial Globalisation Benefit for Financial Development in Africa: is there a Threshold Effect?”. **AERC funded project**.

### **Policy / Economic briefs:**

- Nguena, C. L., (2013a), “Solutions Pratiques au déficit de financement des PME au Cameroun”, **ICBE Policy Brief**, 32;
- Nguena, C. L. (2013b), “Rethinking Pro-Growth Monetary Policy in Africa: Monetarist versus Keynesian Approach”; **Africa Economic Brief (AEB)**, 4.
- Nguena, C. L. (2015), “Urbanization and Housing Finance Development Matter: Fresh Empirical based Lessons for African and Asian countries”, **Africa Growth Agenda**. Vol. 12; Issue 3. July-September 2015.
- Nguena, C. L. (2015), “Credible monetary policy and development in Africa: Monetarist versus Keynesian approach”, **Development Finance Agenda**, 2.

### **Working papers:**

Provided with a possibility to download through <http://ideas.repec.org/e/png162.html>

### **OTHER SKILLS AND COLLEGIATE LIFE**

- **LANGUAGE: FRENCH** – Native; **ENGLISH** – Fluent;
- **CINEMATOGRAPHIC INDUSTRY:** Cineast; Artistic creator; exposition of film and sketch;
- **DRIVING:** Level license and more than 15 years of driving experience;
- **ASSOCIATION EXPERIENCE / TEAMWORK:** Secretary-General, CAYS ([www.cayscam.org](http://www.cayscam.org)).

Selected by the King of the Bafou village as a member of the organizing committee of the first-class event called LEMOU in December-2022

- **INFORMATICS KNOWLEDGE:** Mastering software: STATA, EViews, RATS, SPSS, SPAD, GAMS, EBSCO HOST, LOTUS NOTE, MICROSOFT OFFICE, MySQL, MATHEMATICA, LaTeX.