iNEER Nomination
February 1, 2005

Nominator:

Prof. Maarouf Saad, PhD, P.Eng.
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Nominee:

Hamadou Saliah-Hassane, P.Eng., PhD, Professor
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Category of Award: Achievement Award

Suggested Citation:

For research and innovations in the area of on-line laboratories and for international engineering education and research.

Note:

Professor Saliah-Hassane will be able to attend the event on March 3rd to be held in Tainan to receive the award.

Summary of Accomplishments of Nominee

Principal Fields of Interest

Professor Saliah-Hassane's main areas of interest are related to telelearning systems, expert systems and knowledge based systems, neural networks, physics and electromagnetics, computer networks, mechatronics, simulation and software engineering, optimization and the management of remote and virtual laboratories as well as their management. As well, Professor Saliah-Hassane has a keen interest in information technology based training specifically for international development. He has been actively involved as a lecturer since 1996 at the Conférence internationale des institutions de formation d'ingénieurs et de techniciens d'expression française (CITEF). Since 1999, he has taken an active role in activities sponsored by Frontiers in Engineering Education (FIE), International Organizing Committee for the Information Technology Based Higher Education and Training Conference (ITHET) as a lecturer, reviewer and session chair. His activities and collaboration at conferences in the teaching field as well as in the information and communication technology field are described in the section Papers and Publications.

Committee Membership/Evaluation of Articles for Peer-Reviewed Publications

- External evaluator for a research team grant request for the research organization Fonds Nature et Technologie (Quebec), January 2005.
- External evaluator for a promotion of a senior scientific staff to the academic rank of adjunct Professor, Swiss Federal Institute in Lausanne (EPFL)
- External evaluator for the Best Teaching Award, École de Technologie Supérieure, Montreal (September 2003).
- External evaluator for a research group belonging to the Network of Centres of Excellence in Mathematics for Information Technologies (MITACS: Mathematics of Information Technology and Complex Systems, March 2000).
- Member of the Review Committee for ICEE/iCEER Conferences (2001-2005).
- Member of the Review Committee of papers presented at the "2nd International Workshop on Tele-Education in Engineering Using Virtual Laboratories," Sherbrooke, QC, Canada, August 8-9, 2002.
- Member of the Review Committee of papers presented at "Frontiers in Education 2002" for the *IEEE Transactions on Education* and *Journal on Engineering Education*.
- Member of the Review Committee of papers presented at "Frontiers in Education 2001" for the *IEEE Transactions on Education* and *Journal on Engineering Education*.
- Member of the Review Committee of papers presented at the International Conference on Computers in Education 2000.
- Member of the Review Committee of papers presented at "Frontiers in Education 2000" for the *IEEE Transactions on Education* and *Journal on Engineering Education.*
- Member of the Review Committee of papers presented at "Frontiers in Education '99", for the *IEEE Education* and *Journal on Engineering Education.*

Evaluation of Articles for Scientific Journals

- Evaluation of an article for *International Journal on Computer and Electrical Engineering*.
- Evaluation of articles for *IEEE Transactions on Education*.
- Evaluation of articles for *IEEE Transactions on Magnetics*.
- Evaluation of articles for *International Journal on Engineering Education*.
- Evaluation of articles for the book *Engineering Education and Research 2002, A Chronicle of Worldwide Innovations*.

Steering Committee Membership for International Conferences

- Member of the Organizing Committee for the International Conference on Engineering Education and Research (iCEER 2005, July 27-30, 2005, Tainan, Taiwan).

- Member of the International Organizing Committee for the Information Technology Based Higher Education and Training Conference (ITHET 2004, May 31-June 2, Istanbul, Turkey).
- Member of the Organizing Committee for the International Conference on Engineering Education and Research (iCEER 2004, July 27-30, 2004, Olomuc, Czech Republic).
- Member of the Organizing Committee for the International Conference on Engineering Education (ICEE 2004, October 16-21, 2004, Gainesville, Florida, USA).
- Member of the Organizing Committee for the International Conference on Engineering Education (ICEE 2003, July 22-26, 2003, Valencia, Spain).
- Member of the International Steering Committee for the Information Technology Based Higher Education and Training Conference (ITHET July 22-26, 2003, Marrakech, Morocco).
- Main Organizer and Conference President of the conference on telelaboratories: "Innovations in Virtual and Remote Laboratories", connected with the International Conference on Engineering Education (ICEE 2002, August 18-22, 2002, Manchester, UK).
- Member of the Permanent Steering Committee for the International Network on Engineering Education (iNEER).
- Member of the International Organizing Committee for the Second International Workshop on "Tele-Education in Engineering Using Virtual Laboratories", (WS2002, August 8-9, 2001, Université de Sherbrooke, QC, Canada).
- Member of the International Steering Committee for the International Conference on Engineering Education (ICEE 2001, Oslo, Norway).
- Member of the International Steering Conference Committee for the Information Technology Based Higher Education and Training Conference (ITHET 2001, Kumamoto, Japan).
- Chair, Computer Science Education Session at Frontiers in Education Conference (FIE 2000, August 2000, Kansas City, USA).

Involvement in Various Government and Private Forums dealing with Research Management Logistics

- Member of the research committee at Télé-université.
- Researcher and member of the scientific board for CIRTA (Centre Interuniversitaire de Recherche sur le Télé-apprentissage).
- Member of the International Steering Committee for iNEER (International Network for Engineering Education and Research).

Involvement in Technological or Social Transfer

- General Chair of the first École de Technologie de l'Information conference on "*Gestion, innovation et technologie de l'information*" (Management, Innovation and Information Technology) at the 72nd Conference of the Association francophone pour le savoir (ACFAS), Montreal, QC, Canada, May 10-14, 2004.
- Member of the Canadian delegation at the Information Technology Society Conference (IST 2003) in Milan: Presentation of the LICEF research center.

- Member of the Quebec and Canadian delegation at the World Summit for the Société de l'Information (SMSI 2003) in Geneva: Presentation of research on remote laboratories for teaching and research.
- Invitation from the Rector at the Université Abdou Moumouni Dioffo in Niamey (Niger) to act as international expert at the conference, Colloque sur le diagnostic de l'enseignement supérieure dans les pays de l'UEMOA, March 2003.
- General Chair of the 3rd Conference of the Centre Interuniversitaire de Recherche sur le Télé-apprentissage, at the 71st ACFAS Conference, Rimouski, QC, Canada, May 19-23, 2003.
- International expert, on invitation, at the workshop dealing with Educational and Economic Development Planning in Africa, organized by the Institut pour le développement des capacités en Afrique (IICBA-UNESCO) Addis Ababa, Ethiopia, June 17-19, 2002.
- Honorary President of the Internet Fiesta in Africa (Niger) (FIA 2001).
- Member of the Internet Fiesta in Africa Organizing Committee (Niger) (FIA 2000): Organizer of the Videoconference (Télé-université and the École normale supérieure in Niamey). Topics: Information and Communication Technologies, Broadcast Environments for On-line Courses and Telelaboratories. Chatroom moderator.
- Co-founder, President and administrator of PRONOTIC (Promotion des nouvelles technologies de l'information et de la communication dans l'enseignement en Afrique), a Canadian association promoting Information and Communication Technology for Education in Africa (sending surplus computers and software to schools and public libraries in Africa).
- Advisor for RICOD (Réseau d'information et de communication pour le développement), an information and communication network for development, an NGO for young people in Niger.

Recent Knowledge Exchanges, Collaborations or Transfer with Actors in Various Fields

- **McGill University Heath Center** (2002): Exploring a distributed system of remote monitoring and treatment, in synchronous and asynchronous mode, of patients suffering from diabetes.
- **Air-Tel Communications** (2002): Research Report: Remote Laboratory Management, Optimization and Scheduling for Tutorial Sessions in a Remote Laboratory Environment.
- **Name undisclosed** (2001): Consultation on technologies for broadcasting on-demand video over computer networks.
- **Hydro-Québec (1999)**: Exchange regarding current status of SCADA technologies.
- **SNC-Lavalin (1999)**: Exchanges regarding SCADA technologies, information and communication technologies, for applications in running small electrical generating plants and electric networks in rural settings.

Involvement or Input for Policy Development

- UNESCO-IICBA (2002): Member of a group of international experts invited by the Institut International pour le développement des Capacités en Afrique (IICBA) to

propose, design, develop and set up a remotely distributed higher education program on educational planning.
- Conference of francophone Ministers responsible for Information Pathways (1997): Member of the Delegation from the Republic of Niger.

Research Funding

- (2003-2007) Canadian Innovation Fund, Brokerage System for On-line Laboratories
- (2000-2001), Quebec University Fund, Synchromédia: A Synchronous Collaborative Learning Environment
- (2001) Quebec Ministry of Education, A Telepresential Learning Environment
- (1999-2000) Quebec University Fund, Synchromédia: A Synchronous Collaborative Learning Environment
- (1999) Canadian Innovation Fund, Infrastructure for Research on Telelearning Technologies
- (1998-1999) CANARIE, Virtual Laboratory for Teaching in Science and Technology
- (1998) Office of Learning Technologies, Toward a Generic Virtual Laboratory Model

Contribution to Community

- (Since 2003) Co-chair of Montreal IEEE Education and Professional Communication Chapter in formation and Member of the Nomination Committee
- (Since 2003) Member of the primary school Council of École Primaire Samuel de Champlain in Brossard, Canada
- (Since 1998) Co-founder and Administrator of PRONOTIC (Promoting New Information and Communication Technology in Africa); book drive (9500 books) and used computer drive (over 500) for schools in Africa from 2002 to 2005
- (Since1997) Senior Member of the Institute of Electrical and Electronics Engineers (IEEE): (Education Society; Computer Society)
- (1992-1997 & 2000-2002) Board Member of the École Polytechnique Alumni Association.
- (1990-1991) Founding President of the Niger section of the École Polytechnique Alumni Association, Niger.
- (1982-1983) President of the African Students Association at École Polytechnique, Montreal, QC, Canada.
- (1981-1984) Student Member of the Institute of Electrical and Electronics Engineers (IEEE) at École Polytechnique, Montreal, QC, Canada.

Publications and Papers

Peer-Reviewed Papers

1. H. H. Saliah, D. A. Lowther, B. Forghani, *"Generalised Material Models for Coupled Magnetic Analysis"*, COMPUMAG *99*, Sapporo, Japan, 1999, Published in *IEEE Transactions on Magnetics*, Vol. 36, No. 4, 2000, pp. 1250-1253.
2. H. H. Saliah, D. A. Lowther, B. Forghani, *"Modeling Magnetic Materials using Artificial Neural Networks"*, COMPUMAG 97, Rio de Janeiro, Brazil, November 3-6, 1997. Published in *IEEE Transactions on Magnetics*, Vol. 34, No. 5, 1998, pp. 3096-3059.

3. H. H. Saliah, D. A. Lowther, *"A Neural Network Model of Magnetic Hysteresis for Computational Magnetics"*, *IEEE Transactions on Magnetics*, Vol. 33, No. 5, 1997, pp. 4146-4148.

4. H. H. Saliah, D. A. Lowther, *"Magnetic Material Property Identification Using Neural Network"*, *Applied Computational Electromagnetics Society Journal* (ACES), Vol. 12, No. 2, 1997. Fund: [NSERC & Canadian International Development Agency]

5. H. H. Saliah, D.A. Lowther *"The Use of Neural Networks in Magnetic Hysteresis Identification"*, *Physica B Condensed Matter*, Volume 233, No. 4, June 1, 1997, pp. 318-323. Fund: [NSERC & Canadian International Development Agency]

Solicited Peer-Reviewed Book Chapters

6. M. Mhamdi, R. Braham, M. Moalla. H. Saliah-Hassane, *"A Virtual Verification and Execution of Grafcet Using VRML"*, in W. Aung, P. Hicks, R. Altenkirch, T. Cermak, R. W. King (eds.), *INNOVATIONS 2004, World Innovations in Engineering Education and Research*, BEGELL HOUSE PUBLISHING, 2004, Chap. 34, pp.381-396.

7. H. H. Saliah, C. Loizeau, P. Dumont-Burnett, *"Design of a Web-Based Virtual Laboratory Instrument Measurement Interface"*, in W. Aung, P. Hicks, L. Scavarda, V. Roubicek, C. Wei (eds.), *Engineering Education and Research 2001, A Chronicle of Worldwide Innovations*, BEGELL HOUSE PUBLISHING, 2002, Chap. 13, pp.127-134.

8. M. Saad, H. Saliah-Hassane, H. Hassan, Z. El-Guétioui, M. Cheriet, *"A Synchronous Remote Accessing Control Laboratory on the Internet"*, in W. Aung, P. Hicks, L. Scavarda, V. Roubicek, C. Wei (eds.), *Engineering Education 2001, A Chronicle of Worldwide Innovations*, BEGELL HOUSE PUBLISHING, 2002, Chap. 16, pp.161-167.

9. H. H. Saliah, I. De La Teja, M. Saad, *"Outils, environnement et méthodologie pour l'encadrement et la formation d'équipes multidisciplinaires en génie travaillant en réseau par le Web"* (Tools, Environment and Methodology providing a Framework for Multidisciplinary Team Training in Engineering working on a Network via the Web) in Prospectives Francophones, B. Leduc (ed.), *Former des Ingénieurs par l'université virtuelle*, Presses Universitaires de Bruxelles, a.s.b.l., 2001, pp. 125-140.

10. H. H. Saliah *"Formation, coopération et assistance technique à distance médiatisées"* (Media Based Remote Training, Cooperation and Technical Assistance) in Prospectives Francophones, *Les nouveaux défis des Écoles d'ingénieurs,* Presses Universitaires de Bruxelles, a.s.b.l., 1997, pp. 111-126.

Conference Proceedings (Peer-Reviewed)

11. H. H. Saliah, *"Activity Management Tools for Open Engineering Laboratories"*, *Proceedings of the 7th Baltic Region Seminar on Engineering Education,* St. Petersburg, Russia, September 4-6, 2003, pp. 245-248.

12. H. H. Saliah, M. Saad, H. Hassan, De La Teja, *"Virtually and remotely accessing and controlling laboratory real devices: A new trend in teaching and learning in engineering"*, *Proceedings of the International Conference on Information Technology Based Higher Education and Training ITHET 2000,* Istanbul, July 3-5, 2000, pp. 107-114.

13. H. H. Saliah, M. Saad, L. Villardier, B. Assogba, C. Kedowide, T. Wong, *"Resource Management Strategies for Remote Virtual Laboratory Experimentation"*, *Proceedings of the 2000 Frontier in Education Conference*, Building on a Century of Progress in Engineering Education, Kansas City, USA, October 18-21, 2000.

14. H. H. Saliah, E. Nurse, A. Abecassis, *"Design of a Generic, Interactive, Virtual and Remote Electrical Engineering Laboratory"*, *Proceedings of the* 1999 *Frontier in Education Conference 99:* The Future of Science and Engineering Education, San Juan Puerto Rico, November 10–13, 1999.

15. H. H. Saliah*, M. Saad, *"Virtual Environments for Learning and Training on the Job using the Internet", Proceedings of the Third UNESCO-ACEID International Conference: Educational Innovation for Sustainable Development*, Bangkok, Thailand, December 1-4, 1997.

Peer-Reviewed Conference Papers

16. B. Fattouh, H. Saliah, *"Pedagogical Engineering Fundamentals to Build Robust Software Components",* The International Conference on Engineering Education and Research*, iCEER 2004, July 27-30, 2004, Olomuc, Czech Republic.

17. M. D. Amadou*, H. Saliah, M Saad, *"Laboratory in Engineering Courses via Internet",* The International Conference on Engineering Education and Research, iCEER 2004, July 27-30, 2004, Olomuc, Czech Republic.

18. M. Mhamdi*, H. Saliah, *"A Generic 3D Environment to Remotely Drill and Practice on Embedded Automated Systems",* The International Conference on Engineering Education and Research, iCEER 2004, July 27-30, 2004, Olomuc, Czech Republic.

19. M. Mhamdi*, R. Braham, M. Moalla, H. Saliah, *"A Remote Virtual Environment for Multilanguage Cosimulation of Programmable Logic Controller (PLC) Code", MESM 2003* Middle East Symposium on Simulation and Modelling, January 5-7, 2004.

20. E. Cornieles, M. Saad, G. Gauthier, H. Saliah-Hassane, *"Control y Telemanipulación a distancia de un sistema multivariable", CIMENICS* VII Congreso Internacional de Métodos Numéricos en Ingeniería y Ciencias Aplicadas, San Cristobel, April 28-30, 2004.

21. H. H. Saliah*, I. De la Teja, O. Dioume, C. Kedowide, G. Paquette, M. Saad, L. Villardier, *"Online Laboratory Brokerage System for Education and Research", "The International Conference on Engineering Education"*, ICEE 2003, July 21-25, 2003, Valencia, Spain.

22. L. Villardier, H. H. Saliah*, W. Probst, *"ECHO: A Configurable Remote Training and Monitoring Real Time Environment",* The International Conference on Engineering Education*, ICEE 2003, July 21-25, 2003, Valencia, Spain.

23. L. Villardier, H. H. Saliah*, L. Sauvé, *"A Synchronous Collaborative Environment for Distance Education",* and *Proceedings of the International Conference on Information Technology Based Higher Education and Training ITHET 2003,* Marrakech, Morocco, July 7-9, 2003.

24. P. Permezel, O. Marcoux, H. H. Saliah, M. Saad, C. Nerguizian, *"Generic Simulator Model for Training and Learning in Virtual Laboratory Environments", E-Learn,* World Conference on E-Learning in Corporate, Government, Healthcare and Higher Education, Montreal, QC, Canada, October 15-19, 2002.

25. H. H. Saliah, P. Dumont-Burnett, C. Kedowide, *"A Framework for Distributed Measurement User Interface",* 2002 International Conference on Engineering Education: Partnership, Policy, Practice, Manchester, UK, August 18-22, 2002.

26. R. Fils*, H. H. Saliah, I. De la Teja, M. Maarouf *"A Collaborative Learning System Based on a Shared Interactive Laboratory Notebook",* 2002 International Conference on Engineering Education: Partnership, Policy, Practice, Manchester, UK, August 18-22, 2002.

27. E. Cornieles, M. Saad, G. Gauthier, H. Saliah-Hassane, *"Modeling and Simulation of a Multivariable Process Control",* ELECTRIMACS 2002, Montreal, QC, Canada, August 18-21, 2002.

28. H. Kliffi, J. Desbiens, M. Cheriet, M. Saad, H. H. Saliah*, *"Building a Virtual Laboratory over a Duplicated Object Systems",* 2nd International Workshop on Tele-Education in Engineering Using Virtual Laboratories, WS2002, Sherbrooke, QC, Canada, August 8-9, 2002.

29. E. Cornieles, M. Saad, G. Gauthier, H. Saliah-Hassane, *"Remote Accessing of a Multivariable Process Control"*, 2nd International Workshop on Tele-Education in Engineering Using Virtual Laboratories, WS2002, Sherbrooke, QC, Canada, August 8-9, 2002.

30. H. H. Saliah, C. Loizeau, P. Dumont-Burnett *"Design of a Web-Based Virtual Laboratory Instrument Measurement Interface"*, 2001 International Conference on Engineering Education, Interfacing the World, Oslo/Burgen, Norway, August 6-12, 2001.

31. M. Saad, H. Saliah-Hassane, H. Hassan, Z. El-Guétioui, M. Cheriet, *"A Synchronous Remote Accessing Control Laboratory on the Internet"*, 2001 International Conference on Engineering Education, Interfacing the World, Oslo/Burgen, Norway, August 6-12, 2001.

32. H. H. Saliah, P. Dumont-Burnett, C. Loizeau *"RVLabX, a Web-based Interactive Laboratory Environment for Education and Research"*, 2001 Frontier in Education Conference, The Future - Impact on Engineering and Science Education, Reno, October 10-13, 2001.

33. H. H. Saliah, M. Maarouf, L. Villardier, M. Cheriet, *"Evolutive Remote Laboratories for Collaborative Experimentation"*, Information Technology Based Higher Education and Training, ITHET 2001, Kumamoto, Japan, July 4-6, 2001.

34. H. H. Saliah, L. Villardier, *"La formation et la recherche en mode synchrone par les réseaux informatiques, une réalité émergeante"*, Conference on the *Formation à distance, formation continue et développement* (Remote Training, On-Going Training and Development) of the Centre d'Application et de Ressources en Apprentissage à Distance (CÆRENAD), Dakar-M'bodiène, October 30-November 3, 2000.

35. H. H. Saliah, I. De La Teja, M. Saad, *"Outils, environnement et méthodologie pour l'encadrement et la formation d'équipes multidisciplinaires en génie travaillant en réseau par le Web"* (Tools, Environment and Methodology providing a Framework for Multidisciplinary Team Training in Engineering working on a Network via the Web), VIIe Journées Internationales de Technologies de la Conférence Internationale des Institutions de Formations d'Ingénieurs et de Techniciens d'Expression Française (CITEF), published in Prospectives Francophones, *Former des Ingénieurs par l'université virtuelle,* Beyrouth, Lebanon, May 2-4, 2000.

36. H. H. Saliah, *"Mesures électroniques et télé-manipulations sur les réseaux informatiques pour la formation, l'apprentissage et le télé-travail collaboratif"*, Initiatives 99: Universités virtuelles, vers un enseignement égalitaire, (AUPELF-UREF), Edmunston, NB, Canada, August 26 & 30, 1999.

37. H. H. Saliah, M. Saad, D. Kodjo, *"La formation à distance assistée par le Web, le concept, les outils et les enjeux pour l'Afrique francophone subsaharienne"* (Web Based Distance Education: Concepts, Tools and Challenges for Subsaharian West Africa), Global Knowledge '97 Conference), Canadian International Development Agency (CIDA) and the World Bank, Toronto, ON, Canada, June 1997.

38. H. H. Saliah, M. Saad, D. Kodjo, *"Environnements virtuels de formation et d'apprentissage sur le réseau Internet, du rêve à la réalité"*, Initiatives 97: Inforoutes et technologies de l'information, une chance pour le développement dans l'espace francophone, (AUPELF-UREF), Hanoi, October 25-26, 1997.

39. H. H. Saliah, *"Formation, coopération et assistance technique à distance médiatisées"* (Media Based Remote Training, Cooperation and Technical Assistance), VIèmes Journées Internationales de Technologies de la Conférence Internationale des Institutions de Formations d'Ingénieurs et de Techniciens d'Expression Française (CITEF), published in Prospectives Francophones, *Les nouveaux défis des Écoles d'ingénieurs,* pp. 111-126, Phnom Penh, January 1996.

Non-refereed Contributions

Invited Speaker

- First Learning International Network Consortium (LINC) Workshop, MIT, Boston, MA, USA, February 6-7, 2003. (Outstanding Guest Speaker)
- Information and Communication Technology (ICT 2000) and INFOTECH 2000 (Port-Louis, Mauritius, November 6-11, 2000). Lecture Titles: *"Virtual Laboratories for Remote Educational Collaboration"* and *"Internet and Education"*.
- International Workshop on Tele-Education in Mechatronics Based on Virtual Laboratories (University of Applied Science FH Ravensburg-Weingarten, Germany, July 18-21, 2001). Lecture Title: *"Tele-Engineering Education in Canada."*

Conference Presentations

40. H. Saliah-Hassane, 71th ACFAS Conference, May 19-23, 2003, Université du Québec à Rimouski, Rimouski, QC, Canada, Main Organizer of the 3rd Colloque du Centre Inter-universitaire de Recherche sur le Télé-apprentissage (CIRTA): "Le télé-apprentissage dans la société du savoir: modèles, stratégies et pratiques".
41. H. Saliah-Hassane, M. Saad, O. Dioume, P. Dumont-Burnett, 70th ACFAS Conference, May 13-17, 2002, Quebec City, QC, Canada: "*Interfaces distribuées de télélaboratoires et de laboratoires virtuels."*
42. S. Pierre, H. Saliah, M. Couture, J. Bastien, M. Duguay, M. Chomienne, 69th ACFAS Conference, May 14-17, 2001, Sherbrooke, QC, Canada: *"Laboratoires virtuels et télé-laboratoires."*
43. M. Cheriet, L. Villardier, H. Saliah-Hassane, Journées-réseau sur l'appropriation des technologies de l'information et des communications (TIC), May 3-4, 2001: *"Synchromédia, plate-forme pour le téléprésentiel."*
44. H. Saliah, B. Assogba, Demonstration and Poster Showcase at Telelearning Network of Centres of Excellence, November 6-9, 1999, Montreal QC, Canada.

Invited Lecturer

45. H. Saliah-Hassane, Ilior Abari, S. Pierre, *"Cahiers électroniques de laboratoires: Un répertoire basé sur les objets d'apprentissage"*, 72nd ACFAS Conference, Session C-604, *Développement, intégration et évaluation des technologies de formation et d'apprentissage* (DIVA) Montreal, QC, Canada, May 10-14, 2004.
46. M. D. Amadou, H. Saliah-Hassane, M. Saad, *"Les laboratoires dans les cours de génie via le réseau Internet"*, 72nd ACFAS Conference, Session C-658, *Gestion, innovation et technologie de l'information,* Montreal, QC, Canada, May 10-14, 2004.
47. R. Fils, H. Saliah-Hassane, *"Modélisation d'un système d'apprentissage en collaboration basé sur un cahier de laboratoire interactif partagé par la méthode MISA"*, 72nd ACFAS Conference, Session C-658, *Gestion, innovation et technologie de l'information,* Montreal, QC, Canada, May 10-14, 2004.
48. C. Kedowide, H. Saliah-Hassane, *"Mise au point d'un cahier de laboratoire partagé pour l'apprentissage collaboratif en ligne"*, 72nd ACFAS Conference, Session C-658, *Gestion, innovation et technologie de l'information,* Montreal, QC, Canada, May 10-14, 2004.
49. H. Saliah-Hassane, O. Dioume, M. Saad, P. Dumont-Burnett, *"Interfaces distribuées de télélaboratoires et de laboratoires virtuels"*, 70th ACFAS Conference, Session C-524, *Les multiples facettes du télé-apprentissage,* Quebec City, QC, Canada, May 13-17, 2002.
50. S. Pierre, H. Saliah-Hassane, M. Couture, J. Batien, M. Duguay, *"Laboratoires virtuels et télélaboratoires"*, 69th ACFAS Conference, Session C-620, *Recherches sur le télé-apprentissage*, Sherbrooke, QC, Canada, May 14-17, 2001.
51. M. Cheriet, O. Cherkaoui, H. Saliah-Hassane, L. Villardier, M. Saad, "Synchromédia, plate-forme pour le téléprésentiel", Journées réseau sur l'appropriation des technologies de l'information et de la communication at the Université du Québec, Hull, QC, Canada, May 3-4, 2001.

52. M. Cheriet, O. Cherkaoui, H. Saliah-Hassane, L. Villardier, M. Saad, J. Desbiens, G. St-Amant, M. Côté, P. Dumas, A. Lejeune, T. Wong, Journées réseau sur l'appropriation des technologies de l'information et de la communication at the Université du Québec, Quebec City, QC, Canada, August 26-27, 1999.
53. Poster/Demonstration at the Telelearning Network of Centres of Excellence 1999, Montreal, QC, Canada.

- Guest lecturer at the University of Mauritius and part of the general Mauritius delegation in computer technologies during the Journées INFOTECH 2000, *New Trends For Online Course Development & Delivery Systems /* Laboratoires virtuels et Internet et la formation.
- Other lectures, presentations, demonstrations and workshops for non-academic audiences, depending on their particular interests.
- Panelist at the conference on "Civil Society and the Democratization of Global Governance" on the topic "Intellectual Property, can it benefit the poor?", October 13-16, 2000, Montreal, QC, Canada.
- Participant on a panel dealing with remote training technologies at the Global Knowledge Conference, Toronto, ON, Canada, 1997.

Nominee's Curriculum Vitae

Professor Saliah-Hassane has an Electronics degree from Cheik Anta Diop University (Senegal, 1976), a Bachelor's degree in Engineering, and a Master of Applied Science degree from École Polytechnique de Montréal and a PhD degree in Computer Aided Analysis and Design from the Electrical and Computer Engineering at McGill University in Montreal.

He is currently teaching Informatics and Computer Networks at Télé-université in Montreal, and is Past Program Director of École de Technologie de l'Information (ÉTI).

Professor Saliah-Hassane PhD is a senior researcher at the Inter-university Research Center on Telelearning (CIRTA / LICEF), member of the Ordre des ingénieurs du Québec (OIQ), senior member of IEEE (IEEE Education Society and Computer Society), member of the International Conference on Engineering Education Steering Committee (ICEE-ISC), member of the International Network on Engineering Education and Research Steering Committee (iNEER) and member of the Learning International Network Consortium (LINC) and the European Professional Learning Network (PROLEARN). Professor Saliah-Hassane is also a Principal Investigator of Learning Object Repository Network (LORNET), a Natural Sciences and Engineering Research Council Research Network in Canada. Professor Saliah-Hassane is regularly a guest speaker in a number of francophone and international conferences involving engineering education. Professor Saliah-Hassane is President of PRONOTIC, a Canadian association promoting Information and Communication Technology for Education in Africa (sending surplus computers and software to schools and public libraries in Africa).

Professional Experience

2003 to 2004
    Program Director, École de Technologie de l'Information (ÉTI)

1997 to date
    Professor and Researcher, Télé-université (TÉLUQ) and LICEF
    Topics taught: Software programming using C++ and Java; Computer Networks, Wireless Telecommunication, Introduction to Computers, Network Security, Knowledge Base Systems and Neural Networks.

Sept. 1992-Sept. 1997
    Research Assistant and Teaching Assistant Computer Aided Analysis and Design Laboratory, Department of Electrical Engineering, McGill University
    Topics taught: Expert Systems and Knowledge Based Systems applied to Electrical Engineering

1991
    Guest Research Assistant Canadian Workplace Automation Research Centre (CWARC), Laval Computerized Performance Support Systems

1988-1991
    Chairman, Electrical Engineering Department: International School of Mines, Industry and Geology (EMIG), Niamey, Niger
    Supervisor of teaching and research in the department
    Management of human resources, equipment and budget
    Topics taught: Power Systems, Applied Technology, Electronics and Computer Aided Design, representing EMIG with Canadian training and development agencies and AUPELF-UREF (Francophone Universities Association)

1987-1988
    Project Manager
    TOUT-ELEC NIGER, an electrical and electronic equipment company
    Creation of computer department
    Local agent for foreign computer firms tendering for contracts in Niger

1985-1987
    Professor and Researcher, University of Niamey, Niger
    Topics taught: Physics (Electricity and Electromagnetics), Electrical Machines, Lines and Microwaves, Physics Lab.

1984-1985
    Electronics Teacher (National Civil Service)
    Lycée d'enseignement professionnel Issa Béri, Niamey, Niger

1981-1984
    Research Assistant and Teaching Assistant
    École polytechnique de Montréal, in collaboration with Hydro-Québec
    Topics taught: Electrical Machines, Power Systems Reliability, Grounding and Protection of Electrical Energy Equipments

1980
    Research Assistant
    Quebec Electric Research Institute (IREQ), Research in thermonuclear fusion (TOKAMAK)

1976-1977
    Head Technician
    Niger National Electric Corporation (NIGELEC)
    Work Supervision in transmission and distribution equipment installation

Education

Sept. 1992-Jan. 2000
    Philosophiae Doctorate (Ph.D.), McGill University, Montreal, QC, Canada
    Training in Educational Technology, Faculty of Education, Université de Montréal
1981-1983
    Masters of Applied Sciences (M.Sc.A.), École Polytechnique de Montréal
1978-1981
    Bachelor of Engineering (B.Eng), Electrical engineering, École Polytechnique de
    Montréal
1974-1976
    Technical University Degree (D.U.T.) specialization in electronics
    Institut Universitaire de Technologie (IUT), Dakar, Senegal

Awards in Education

1974-1976 Niger National scholarship (Support for studying abroad, in Senegal)
1978-1983 Canadian International Development Excellent Student scholarship
1989   Fonds d'aide et de coopération (Training the trainers program in France)
1992-1995 Canadian International Development Excellent Student scholarship

Letters of Support
Attached

UNIVERSITY OF MAURITIUS

Pro Vice-Chancellor
Professor I Fagoonee, *CBiol., FIBiol.*
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LETTRE D'APPUI ET DE RECOMMENDATION

C'est avec un grand plaisir que j'écris cette lettre pour appuyer la candidature du Professeur **Hamadou Saliah-Hassane** pour un prix mérite d'accomplissement professionnel intitulé Achivement Award « For research and innovations in the area of on-line laboratories and for international engineering education development. »

J'ai connu personnellement le candidat alors que notre université participait, sur une période de 5 années, en partenariat de recherche développement dans un projet nommé CÆRENAD (an application, study, and resource centre in the field of distance learning) avec la Télé-université et quatre autres pays dont le Sénégal, le Chili, le Brésil, le Costa-Rica et notre pays l'Ile Maurice.

En novembre 2000, nous avions invité, à l'Ile Maurice, le Prof. Saliah-Hassane à partager avec nous sa passion pour la promotion des laboratoires à distance et le e-learning pour l'enseignement supérieur. Ce dernier avait accepté et a généreusement contribué au succès de notre première conférence INFOTECH/ICT WEEK. Permettez moi de vous dévoiler, dans cette lettre d'appui, le contenu de la lettre de remerciement que nous lui avions adressée :

«Your presence among us during November last has indubitably left a remarkable impression on the avocators of innovative approaches to teaching and learning. In this respect, I wish to express my grateful thanks for having kindly partook your expertise in the field with stakeholders during the Infotech/ICT Week (November 2000). Your exposés in the line with concept of virtual laboratories and revolutionary approaches paving their way in the field of distance education would in many respects provide invaluable insights to change agents initiators and policy makers.

Moreover we are grateful for your expert presentation on the subject of Virtual Laboratories, their application, significance and benefits – that you benevolently agreed to deliver for academic staff of the University of Mauritius, inspite of your constrained schedule. I feel obliged to assert that your commendable contribution would surely constitute a determining plank in our endeavour at fostering a culture that sustains and promotes the continuous development and application of Innovative Learning Technologies at the University of Mauritius.

Allow me to reiterate my sincere thanks and look forward to welcoming you to Mauritius in some near future. "

Dans son soucis de partager les connaissances et les expertises, le Prof. Saliah-Hassane a par la suite accueillit en stage, pendant quelques mois, dans son laboratoire au LICEF research center, un de nos professionnel senior qui a su répondre à nos besoins spécifique, ceci à l'instar d'autres visiteurs de plusieurs coins du monde.

Le passage suivant est juste un exemple. Le Curriculum Vitae du candidat nous révèle plusieurs autres aspects du rayonnement international et scientifique du candidat :

1. Il est très actif dans de nombreux réseaux professionnels nationaux et internationaux tels que l'ordres des ingénieurs du Québec, iNEER, IEEE, PROLEARN (Réseau européen), UNESCO, LORNET (réseau de recherche pan-canadien), de la francophonie mondiale, etc.
2. Il a une grande sensibilité à l'égard des préoccupations de l'enseignement supérieur et de l'éducation de base dans les pays en développement, grâce à ses origines et à son expérience dans l'enseignement au Niger, dans un contexte national et régional. En tant que président d'une association à but non lucratif, il a su organiser des « books and computer drive » à l'intention des écoles démunis en Afrique.
3. Ses travaux de recherche lui ont permis d'obtenir des fonds de recherche et d'équipements, notamment dans le programme très prisés de la fondation canadienne pour l'innovation (Canadian Innovation Funds).
4. Il participe, à titre bénévole, à l'évaluation d'articles de revue et à l'évaluation des travaux de réseaux ou de groupes de recherche.
5. Le candidat a effectué des études dans des universités de réputation internationale dont l'École Polytechnique de Montréal, l'École Nationale des Mines de Paris et l'Université McGill à Montréal au Canada.

En ma connaissance, dans le cadre des séries de conférences ICEE/ICEER de iNEER, depuis 2002, le candidat a régulièrement proposé, en tant que responsable principal, des appels de communications portant sur les laboratoires à distance toujours mis à jour en fonction de l'évolution de la recherche dans le domaine, à savoir :
ICEE 2002 : « Innovations in Virtual and Remote Laboratories"
iCEER2003: "Sharing Online Laboratories and their Components"
iCEER2004:"New Trends for Online Experimentation"
iCEER2005: "Online Laboratory Computing and Infrastructure Technologies"

Je termine en suggérant, à cet honorable comité de prix, de décerner au Prof. Hamadou Saliah-Hassane le prix de Achievement "For research and innovations in the area of on-line laboratories and for international development."

This award will definitely further enhance his contribution to society, industry and to knowledge creation at large.

PROFESSEUR I FAGOONEE
Vice Président
Université de Maurice
Chevalier de l'Ordre des Palmes Académiques
Visiting Professor, Brunel University, UK

4 février 2005

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LETTER OF SUPPORT AND RECOMMENDATION

It is with great pleasure that I write this letter to support Professor Hamadou Saliah-Hassane as candidate for a professional achievement award known as the Achievement Award, "for research and innovation in the area of on-line laboratories and for international engineering education development."

I personally knew the candidate at the time when our university participated, over a five-year period, in a research development partnership in a project called CÆRENAD (an application, study, and resource center in the field of distance learning) involving Télé-université and four other countries, namely Senegal, Chile, Brazil and Costa Rica, as well as our own country, Mauritius.

In November 2000, we had invited Professor Saliah-Hassane to Mauritius, to share with us his enthusiasm in promoting remote laboratories and e-learning for higher education purposes. He had accepted our invitation and generously contributed to the success of our first conference, INFOTECH/ICT WEEK. Allow me to include, in this letter of support, the contents of the letter of thanks we had sent him following the event.

"Your presence among us during November last has indubitably left a remarkable impression on the avocators of innovative approaches to teaching and learning. In this respect, I wish to express my grateful thanks for having kindly partook your expertise in the field with stakeholders during the Infotech/ICT Week (November 2000). Your exposés in the line with concept of virtual laboratories and revotionary approches paving their way in the field of distance education would in many respects provide invaluable insights to changes initiators and policy makers.

Moreover we are grateful for your expert presentation on the subject of Virtual Laboratories, their application, significance and benefits – that you benevolently agreed to deliver for academic staff of the University of Mauritius, in spite of your constrained schedule. I feel obliged to assert that your commendable contribution would surely constitute a determining plank in our endeavour at fostering a culture that sustains and promotes the continuous development and application of Innovative Learning Technologies at University of Mauritius.

Allow me to reiterate my sincere thanks and look forward to welcoming you to Mauritius in some near future. "

Following this conference, Professor Saliah-Hassane, most keen and anxious to share his knowledge and expertise, welcomed one of our senior professionals to his laboratory at the LICEF research center for a training period that lasted a number of months. Thanks to this training, our colleague was able to meet our specific needs, as was the case for other visitors from many countries.

The following items are but a few examples of Professor Saliah-Hassane's involvement and generosity. The candidate's curriculum vitae clearly indicates other aspects of his involvement as a scientist and researcher, and of his contribution at the international level:

1. Professor Saliah-Hassane is actively involved in numerous national and international professional networks, such as the Ordre des ingénieurs du Québec, iNEER, IEEE, PROLEARN (a European network), UNESCO, LORNET (a pan-Canadian research network), in other international francophone groups, etc.

2. He's keenly aware of the concerns related to basic and higher education in developing countries, thanks to his country of origin and his teaching experience in Niger, both on the national and international level. As president of a non-profit organization, he was able to set up book and computer drives for needy schools in Africa.

3. As a researcher, he has been awarded various research grants and equipment, more particularly from the very prestigious Canadian Innovation Fund.

4. He participates as a volunteer in evaluating articles to be published in scientific journals and in evaluating research done by various networks and research groups.

5. The candidate has completed his studies in world renowned universities, such as l'École Polytechnique de Montréal, l'École Nationale des Mines de Paris and McGill University in Montreal, QC, Canada.

Since 2002, the candidate has been involved in a number of ICEE/ICEER (iNEER) conferences, and as Main Organizer, has regularly launched calls for papers dealing with remote laboratories, always dealing with state-of-the-art research in the field, for instance:

ICEE 2002: *"Innovations in Virtual and Remote Laboratories"*
iCEER 2003: *"Sharing Online Laboratories and their Components"*
iCEER 2004: *"New Trends for Online Experimentation"*
iCEER 2005: *"Online Laboratory Computing and Infrastructure Technologies"*

I conclude by proposing that this honorable Prize Committee award the Achievement Award to Professor Hamadou Saliah-Hassane, "for research and innovations in the area of on-line laboratories and for international development."

This award will definitely further enhance his contribution to society, industry and to knowledge creation at large.

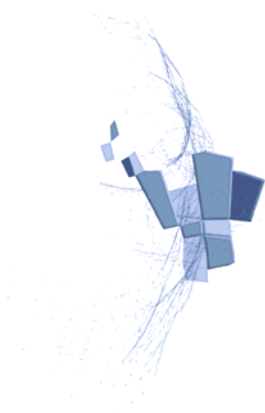*PROFESSOR I. FAGOONEE*
Vice President
University of Mauritius
Chevalier de l'Ordre des Palmes Académiques
Visiting Professor, Brunel University, UK

[Translated by Rachelle Renaud, Hon. B.A., M.A., member of The Literary Translators' Association of Canada (LTAC), the Union des écrivaines et des écrivains du Québec (UNEQ) and the Quebec Writers' Federation (QWF).]

Paris, le 6 février 2005

Director

A QUI DE DROIT

I have known Professor Hamadou Hassane-Saliah since he was selected in 1988 to be part of the core team of the Staff level of an Inter-State technical college (EMIG), located in the Niger. After the year in training at the ENSMines de Paris, with the other selected staff, HHS, as we came to call him, was confirmed in his position as Head of Department of the EMIG in Niamey.

Two features honour the candidate – a meticulous scientific background which allows HHS to analyse complex situations ; a quick mind which enables him to correctly synthesise equally complex decisions. HHS has also proved that he is capable of allying these two gifts, all along the adventure of designing, building, equipping and launching the college (for technicians and student engineers of the *Communauté Economique de l'Afrique de l'Ouest* (CEAO).

Already and at the EMIG, HHS turned out to be a network specialist; it was therefore no surprise to me to witness the brilliant track-record that took him to the Télé-Université, and therefore it was with admiration that I perused the latest version of his CV, with a view to supporting his nomination. As one goes through the CV, two other features come to the forefront – his commitment to international collaboration as linked to development educational issues – the key-stone for developing countries. It was no surprise to me to see to what degree HHS had invested in international conferences. Lastly, his inventiveness in the area of remote-teaching, the latter area certainly due to take over from standard Internet exchanges such as we know them today.

All of the above attest to HHS's capacity to exercise a visionary approach to access to knowledge tomorrow. But even today, HHS's track-record (which I knew and followed from 1988 to 2004, i.e., 16 years) are exemplary enough for me to consider him as fully meriting an « achievement award ».

Alan M. RODNEY*

- former tenured professor ENST (1964-1978) ;
- senior lecturer, Ecole Polytechnique (1978-83) ;
- Deputy to the Dean ENSMines de Paris (1983-1989) ;
- Secretary General of the Conseil supérieur de la recherche et de la technologie (CSRT) (1989-1997) ;
- Chargé de mission Academy of sciences of France (1997-2000) ;
- Director of the National Academy of Technologies of France (2001 …).

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