iNEER Nomination
February 1, 2005

Nominator: Prof. Maarouf Saad, PhD, P.Eng.
Chairman of Electrical Engineering Department
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Montreal, QC, Canada H3C 1K3
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Nominee: Hamadou Saliah-Hassane, P.Eng., PhD, Professor
Télé-université
4750 Henri-Julien
Montreal, QC, Canada H2T 3E4
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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).
- 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.

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 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).
• 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.
• Honorary President of the Internet Fiesta in Africa (Niger) (FIA 2001).
• 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.
• **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.


**Research Funding**

- (2000-2001), Quebec University Fund, Synchromédia: A Synchronous Collaborative Learning Environment
- (1998-1999) CANARIE, Virtual Laboratory for Teaching in Science and Technology

**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)
- (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**


Solicited Peer-Reviewed Book Chapters


Conference Proceedings (Peer-Reviewed)


Peer-Reviewed Conference Papers


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.


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

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


- Guest lecturer at the University of Mauritius and part of the general Mauritus 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

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

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

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
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 Achievement 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’Île Maurice.

En novembre 2000, nous avions invité, à l’Île 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 avons adressée :

«Your presence among us during November last has indubitably left a remarkable impression on the advocates 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 endeavor 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 accueilli 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 prisé 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
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 advocates 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 expositions 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 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:

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).]
A QUI DE DROIT

I have known Professor Hamadou Hassane-Salia 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 Économique 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 …).