

CURRICULUM VITAE

1. Name: Ganbold Shagdar

2. Education – degree, discipline, institution, year:

PhD: Optical communication, Gwangju Institute of Science and Technology, Gwangju, Republic of Korea, 2001.03 – 2016.02

MSc: Telecommunication, Mongolian University of Science and Technology, Ulaanbaatar, Mongolia, 1996.09 – 1997.06

BSc: Telecommunication, Telecommunication, Mongolian University of Science and Technology, Ulaanbaatar, Mongolia, 1986.09 – 1991.06

3. Academic experience – institution, rank, title, when, full time or part time:

2016.04 – until now: Associate Professor, in Department of Communication Engineering Technology, School of Information and Communication Technology of Mongolian University of Science and Technology (MUST), full time

1993 – 2008: Teacher, in Department of Telecommunication system and Switching technology, School of Information and Communication Technology of MUST, part time

4. Non-academic experience – company or entity, title, brief description of position, when, full time or part time

- 2016.04 – now: Associate Professor in in Department of Communication Engineering Technology, School of Information and Communication Technology of Mongolian University of Science and Technology (MUST)
- 2011.03 – 2016.02: Doctor Student in Gwangju Institute of Science and Technology, Gwangju, Republic of Korea
- 2009.01 – 2011.02: Specialist in Information and Communications Network Company of Mongolia.
- 2004.11 – 2008.12: Project manager in Mobicom corporation of Mongolia.
- 2003.07 – 2004.10: Officer, in Policy and Coordination Department of ICT, Ministry of Infrastructure Development of Mongolia.
- 1999.04 – 2003.06: Consultant Engineer, Detecon/decon JV company in Mongolia.
- 1995.10 – 1999.03: Network Planning Expert, Head of Technical Planning Division, Post & Telecommunication Authority of Mongolia.
- 1991.06 – 1995.09: Research worker. Research and Industrial Institute of Mongolia.

5. Certifications or professional registrations

- Consulting engineer of Mongolia

6. Current membership in professional organizations:

- none

7. Honors and awards:

- “Outstanding worker of Information and Communication Technology sector”, 2006

8. Service activities (within and outside of the institution)

- Member of Curriculum sub-committee, SICT
- Member of Curriculum Committee of DCET

9. Briefly list the most important publications and presentations from the past five years – title, co-authors if any, where published and/or presented, date of publication or presentation (selected)

Publications:

- “Гэрлэн долгионы холбооны үндэс”, сурах бичиг, /Ш.Ганболд, З.Буянхишиг // DDC 621.38275 В-819, Ном хур, Улаанбаатар, (2011). 227 хуудас.
- “Оптик нягтруулга”, сурах бичиг, /Ш.Ганболд, З.Буянхишиг // DDC 609.2 В-819, Ном хур, Улаанбаатар, (2013). 262 хуудас.
- “Оптик холбооны систем”, гарын авлага, /Ш.Ганболд/, Улаанбаатар, (2019). 88 хуудас.
- “Мэдээлэл, кодлолын онол” гарын авлага, /З.Буянхишиг, Ш.Ганболд/, Улаанбаатар, (2005). 60 хуудас.
- “SDH нягтруулга”, бие даалт авлага, / З.Буянхишиг, Ш.Ганболд/, Улаанбаатар, (2004). 54 хуудас.
- "Energy-efficient scheduling methods in Optical Access Networks", /Sh.Ganbold// LAP LAMBERT Academic Publision, September. 2017, www.morebooks.de.

Scientific articles and papers:

- “Comparative study of estimation of rain and cloud attenuation at high frequency on satellite links for Mongolia”, /Otgonbaatar.Y, Ganbold.Sh, Buyankhishig.Z/ International journal of innovative science and research technology, 2023
- “Network Architecture Design of Hybrid Terrestrial and Satellite Network for Mongolia” /Otgonbaatar.Y, Ganbold.Sh, Buyankhishig.Z/, IEEE-12th International conference on Communications, Networks and Satellite-2023 (COMNETSAT), Malang, Indonesia.
- "Possibility study to delivery IoT services to rural nomadic life based on national satellite in Mongolia" /Otgonbaatar.Y, Ganbold.Sh, Buyankhishig.Z/, The International Academic Conference-2023, Khuree University.
- "Монгол улсын үндэсний хиймэл дагуулын холбоог газрын суурь сүлжээтэй хослуулан хөгжүүлэх боломж" /Ю.Отгонбаатар, Ш.Ганболд, З.Буянхишиг/ ММТ-2023, Улаанбаатар.
- “Оптик хэрэглэгчийн сүлжээн дэх зурвас хуваарилалтын аргууд” /Б.Цэрэнлхам, Ш.Ганболд, З.Буянхишиг/ Эрдэм шинжилгээний бүтээлийн эмхэтгэл, ШУТИС, Улаанбаатар, 2021 №2, 279
- “WDM EPON сүлжээний үйлчилгээний чанарыг сайжруулах шаталсан DWBA загвар” /Б.Цэрэнлхам, Ш.Ганболд, З.Буянхишиг/ Цахим үндэстэн-2021, Улаанбаатар.
- “Төрийн цахим үйлчилгээнд зориулсан Мэдээлэл Холбооны Сүлжээний дэд бүтцэд тавигдах шаардлага”, /Ш.Ганболд, З.Буянхишиг/ Цахим үндэстэн-2021, Улаанбаатар

- “Assessment approach of programm learning outcomes based on performance indicators” Shagdar Ganbold, Uranchimeg Tungalag, Erdenekhuu Norinpel, Proceedings of the CDIO Asian Regional Meeting, Mongolian University of Science and Technology, Ulaanbaatar, Mongolia September 22 – 25, 2020.
- “Атмосферийн оптик холбооны системд борооны нөлөөллийг тооцох нь” Д.Долгорсүрэн, З.Буянхишиг, Ш.Ганболд, ММТ 2020 олон улсын ЭШХ.
- "Multimodal Emotion Recognition Using Non-Inertial Loss Function" Jargalsaikhan Orgil, Stephen Karungaru, Ganbold Shagdar, Journal of Signal Processing, Vol 25, No2, pp73-85, March, 2021.
- “Идэвхгүй оптик сүлжээний найдваржилтын загварчлал ба оновчлол” Д.Долгорсүрэн, З.Буянхишиг, Ш.Ганболд, ШУТИС, InfoNet&Sec ЭШХ-ын эмхэтгэл., 2020, 33-37х
- “An enhanced DWBA algorithm in WDM-TDM PON networks” /Tserenlkham.B, Ganbold.Sh, Buyankhishig.Z//, ICACT-2020 proceeding, Korea.
- “Үйлчилгээний төрөлд нийцүүлсэн DBA алгоритм” Б.Цэрэнлхам, Ш.Ганболд, З.Буянхишиг, Монголын Мэдээллийн Технологи ЭШХ-ын эмхэтгэл., 57-60х, 2019
- “Waveguide-type optical circuits for the recognition of optical 8PSK-coded labels” Munkhbayar Adiya, Nyam-Erdene Odbayar, Hiroki Kishikawa, Nobuo Goto, and Shagdar Ganbold, Japanese Journal of Applied Physics, Volume 58, pp 48-58, 2019
- Dynamic Wavelength and Bandwidth allocation algorithm in WDM/TDM PON networks /Tserenlkham.B, Ganbold.Sh, Buyankhishig.Z// The 13th International Forum on Strategic Technology 2018
- Program learning outcomes assessment of undergraduate engineering program /N.Erdenekhuu, Sh.Ganbold, T.Uranchimeg/, International conference on Effectiveness and efficiency of education, Ulaanbaatar, 2018. 324-334х
- WDM-EPON сүлжээний динамик зурвасын өргөний хуваарилалт /Б.Цэрэнлхам, Ш.Ганболд, З.Буянхишиг//ШУТИС-ийн Эрдэм шинжилгээний бичиг №1/228, 82-86
- WDM-EPON сүлжээний сайжруулсан DWBA алгоритм /Б.Цэрэнлхам, Ш.Ганболд, З.Буянхишиг//Харилцаа холбоо, мэдээллийн технологийн Өнөө ба Ирээдүй-2018, 199-205х.
- Assessment experience on program learning outcomes. /Erdenekhuu Norinpel, Shagdar Ganbold, Uranchimeg Tungalag// IEEE, International Conference, 2018. Tokyo, Japan.
- ONU driven energy saving method in an EPON by implementing a look-ahead MPCP-2 /Sh.Ganbold, Z.Buyankhishig// ICAST2018 IEEE International Conference, Fukuoka, Japan, 2018
- WDM-TDM PON сүлжээний долгионы урт болон зурвас хуваарилалтын арга / Ш.Ганболд, Б.Цэрэнлхам, З.Буянхишиг// Монголын Мэдээллийн Технологи ЭШХ-ын эмхэтгэл., 97-101х, 2017
- "WDM-TDM PON сүлжээний зурвас хуваарилалтын арга" / Ш.Ганболд, Б.Цэрэнлхам, З.Буянхишиг// Холбоо, мэдээллийн технологийн өнөө ба ирээдүй ЭШХ-ын эмхэтгэл., 58-61х, 2017
- "All Optical Modulation Format Conversion From QPSKto Symbol Rate Doubled BPSK Using FWM and Pulse Width Compression", /Batdalai Sukh, Hiroki Kishigawa, and Ganbold Shagdar // Journal of Lightwave Technology.Vol 35, pp4219-4226, October.1.2017, IEEE
- **Sh.Ganbold** "Energy-efficient bandwidth allocation method in EPON", MUST Research Conference, pp 112-121, Ulaanbaatar 2017

- **Sh.Ganbold**, Z.Buyankhishig "Near Real-time Tracking Mechanism for OUN's Service Performance", pp115-119, "Khurel Togoot-2016" International Research Conference. 2016, Ulaanbaatar, Mongolia
- **Sh.Ganbold**, Z.Buyankhishig "Wavelength minimization based energy-efficiency method in multichannel PON", MUST Research Digest 18/2016,
- B. Tserenlham, Z.Buyankhishig, Sh.Ganbold "Bandwidth allocation methods in WDM-TDM PON", Proceedings of Research Conference., 58-61x
- **Ganbold Shagdar**, Junsu Kim, and Chang-Soo Park, "Sleep-based Energy-efficient DBA in an EPON using the Controlling Mechanism for an ONU's Buffer Occupancy and Packet Delay", Journal of Optical Communications and Networking, 7 (10), pp. 1001-1008, (2015).
- **Ganbold Shagdar**, Junsu Kim, and Chang-Soo Park, "Wavelength channel minimization-based energy-aware mechanism in a multichannel EPON", Journal of Photonic Network Communications, pp. 1-12, published online (Oct, 2015).
- Z.Buyankhishig and **Sh.Ganbold**, "Optical Multiplexing", Book, DDC 609.2 B-819, Nom Khur, Ulaanbaatar, (2013).
- Z.Buyankhishig and **Sh.Ganbold**, "Basics of Lightwave Communication", Book, DDC 621.38275 B-819, Nom Khur, Ulaanbaatar, (2011).
- Z.Buyankhishig and **Sh.Ganbold**, "Capability of Current Backbone Transmission Network of Mongolia", In Proceeding of Doctorate Students Research Conference "Khurel Togoot", on, pp.42-46, Mongolia, (2010).
- **Sh.Ganbold**, "Backbone Transmission Network Innovation of Mongolia", In Research Conference of School of ICT, on, pp.18-20, Mongolia, (2010).
- B.Damdinsuren and **Sh.Ganbold**, "Study for Introduction of Next Generation Network in Mongolia", Scientific and Technology Journal of Mongolia, No.1, pp.5-10, Mongolia, (2009).
- **Sh.Ganbold** and B.Sukhbaatar, "Current Situation of Domestic and Rural Transmission Network of Mongolia", Telecommunication magazine "Bileg", No.7, pp.15-19, Mongolia, (2004).
- B.Sukhbaatar, N.Nansaljav, **Sh.Ganbold**, and N.Baatarsuren, "Project Proposal for the Digital Microwave Link in Western Mongolia", Project report, Mongolia, (1996).
- B.Sukhbaatar, N.Baatarsuren, and **Sh.Ganbold**, "Optic Cable Installation Standard", National Standard MNS5207, Mongolia, (2002).
- **Sh.Ganbold** and Z.Buyankhishig, "Herder's Telecommunication Cryptic Demand", Journal of Telecommunication, No.1, pp.8-14, Mongolia, (2002).

10. Briefly list the most recent professional development activities (conference and seminar):

- none