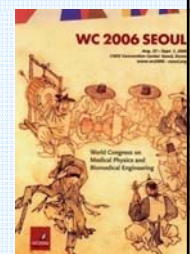
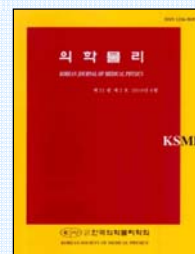


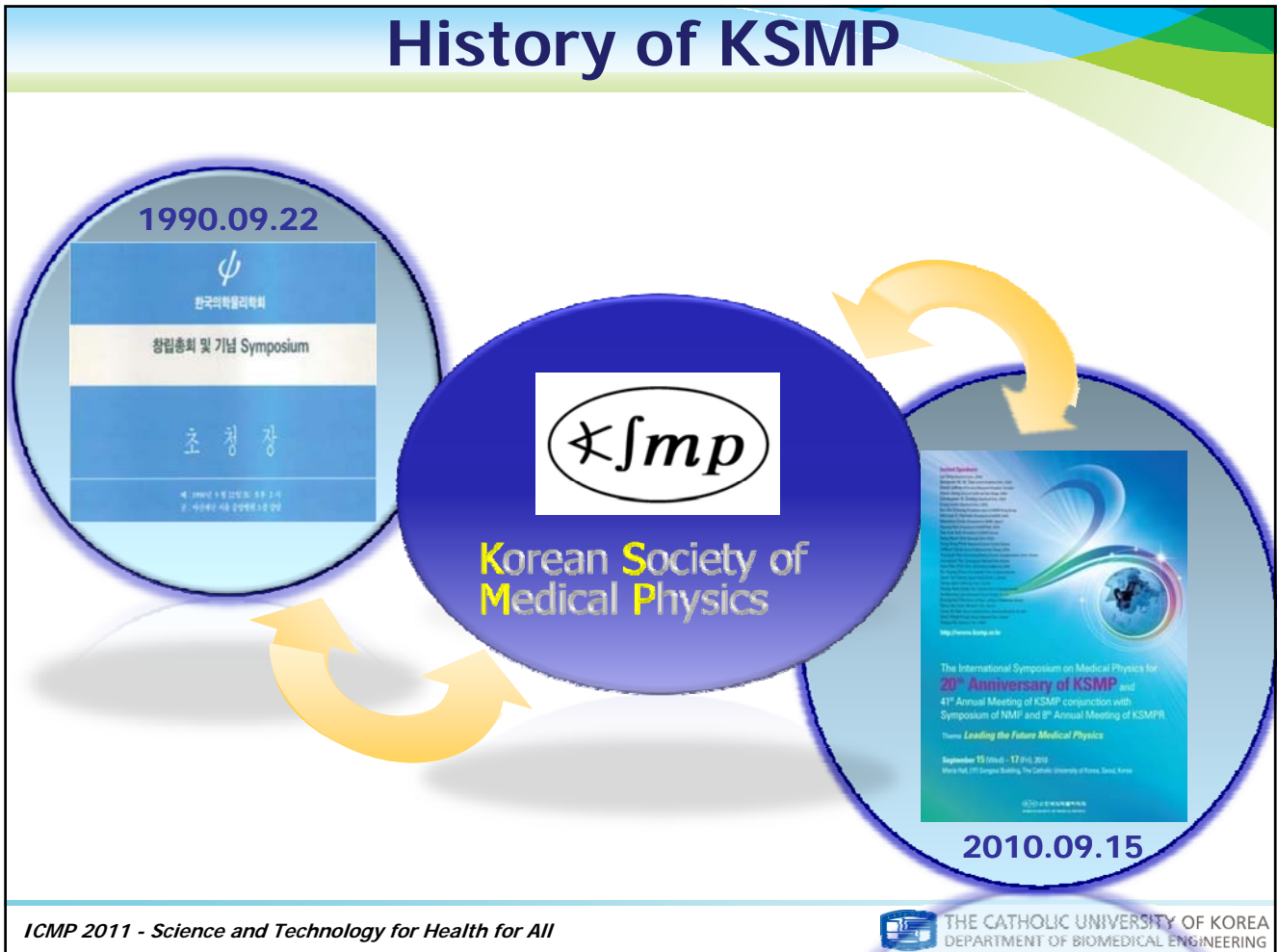


Education, Training, and Certification of Medical Physicist in Korea

Rena Lee, Education Committee, KSMP
Tae-Suk Suh, President, KSMP




History of KSMP



1990.09.22 - Initiated KSMP

Korean Society of Medical Physics

<p>한국의학물리학회 창립총회 및 기념 Symposium 초록집</p> <p>The Inaugural Meeting and Commemorative Symposium of Korean Society of Physicists in Medicine</p> <p>배 : 1990년 9월 22일 (토) 오후 2시 곳 : 서울대학교병원 1강당 후원 : 금강의료기구조회사 동강부역주식회사 스페르상사</p>	<p>韓國醫學物理學會 定款(案)</p> <p>1990, 9, 22</p> <p>韓國醫學物理學會</p>	
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1990.10.20 - Published KJMP

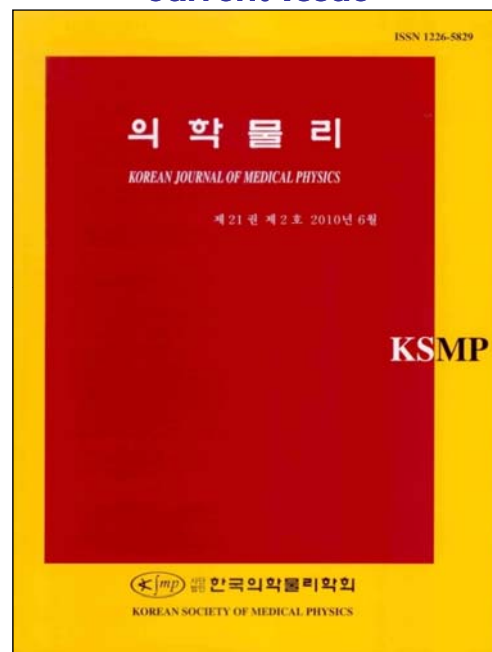
Korean Journal of Medical Physics

First Issue



1990 - 2001

Current Issue



2002 - Present

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DEPARTMENT OF BIOMEDICAL ENGINEERING

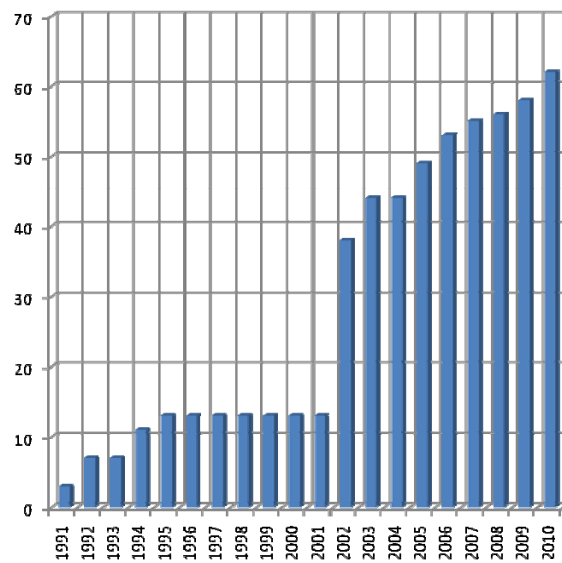
1990.12.15 - Initiated KBMP

Korean Board of Medical Physics

1st certified MP



Certified MP



1995.03 - 1st Graduate Program of MP

Medical Physics

1995  **KYONGGI UNIVERSITY**

1997  **가톨릭대학교**
THE CATHOLIC UNIVERSITY OF KOREA

2000  **고려대학교**
KOREA UNIVERSITY

2001  **연세대학교**
YONSEI UNIVERSITY

2004  **서울대학교**
SEOUL NATIONAL UNIVERSITY

종별	학점번호	학점	강의	국문교과과정	영문교과과정
전공	RAD6001	1	1	개별연구지도1	INDIVIDUAL STUDY 1
전공	RAD6002	1	1	세미나1	SEMINAR 1
전공	RAD6003	3	3	의료방사선영상학특론	ADVANCED MEDICAL RADIATION IMAGING
전공	RAD6004	3	3	고급자기공명영상학	ADVANCED MAGNETIC RESONANCE IMAGING
전공	RAD6005	3	3	고급핵의학영상학	ADVANCED IMAGING OF NUCLEAR MEDICINE
전공	RAD6006	3	3	고급방사선계측학	ADVANCED RADIATION MEASUREMENT
전공	RAD7001	3	3	CT영상학특론	ADVANCED CT IMAGING
전공	RAD7002	3	3	의료영상시스템특론	ADVANCED MEDICAL IMAGING SYSTEMS
전공	RAD7003	3	3	의학물리특론1	SPECIAL TOPICS IN MEDICAL PHYSICS I
전공	RAD7004	3	3	치료방사선물리학특론	ADVANCED RADIATION THERAPY PHYSICS
전공	RAD7005	1	1	세미나2	SEMINAR 2
전공	RAD7999	1	1	연구지도1	DIRECTED RESEARCH 1
전공	RAD8001	3	3	고급초음파영상학	ADVANCED IMAGING OF ULTRASOUND IMAGING
전공	RAD8002	3	3	영상정보학특론	ADVANCED IMAGING INFORMATICS
전공	RAD8003	3	3	방사선방호및보건물리특론	ADVANCED RADIATION PROTECTION AND HEALTH PHYSICS
전공	RAD8004	3	3	디지털영상처리및화질론	DIGITAL IMAGE PROCESSING AND IMAGE QUALITY THEORY
전공	RAD8005	1	1	세미나3	SEMINAR 3
전공	RAD9999	1	1	연구지도2	DIRECTED RESEARCH 2

2004.05.01 - 1st Residency Program

▪ Hospital Residency Program



- Medical Physics Academy of National Cancer Center

The NCC's medical physics residency program is an KSMP accredited program intended to provide comprehensive training and experience in radiation oncology physics to candidates with a **Ph.D. degree** in physics, medical physics or a closely related field

- 1st Residency program in Korea since 2004
- Fully accredited by KSMP as two years program
- Currently 4 residents (1st year-2, 2nd year-2)
1 medical physics fellow



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2006.08.27-09.01 World Congress on MP

❖ Opening Ceremony



❖ Welcome Reception



❖ Gala Dinner



❖ Farewell Party



2010.09.15- 20th Anniversary of KSMP

President, KSMP

1st



2nd



3rd



4th



5th



Invited Speakers

- Lei Xing (Stanford Univ., USA)
- Benjamin M. W. Tsai (Loma Pling Univ., USA)
- David Jaffray (Princess Margaret Hospital, Canada)
- Steve Jiang (Univ of California San Diego, USA)
- Christopher H. Contag (Stanford Univ., USA)
- Craig Levitt (Stanford Univ., USA)
- Kim-Yin Cheung (President elect of IOMP Hong Kong)
- Michael G. Herman (President of AAPM, USA)
- Masahiro Endo (President of JAMP, Japan)
- Syoung Kim (President of KAMPINA, USA)
- Tae-Guk Suh (President of KSMP, Korea)
- Sang Hyun Cho (Georgia Tech, USA)
- Sung Yong Park (National Cancer Center, Korea)
- William Song (Univ of California San Diego, USA)
- Younggi Han (Samsung Medical Center, Sungkyunkwan Univ., Korea)
- Jeongsoo Kim (Kangyong National Univ., Korea)
- Yoon-Won Kim (Univ of Southern California, USA)
- Bo Young Choe (The Catholic Univ. of Korea, Korea)
- Hyun-Do Chung (Seoul National Univ., Korea)
- Dong-Joon Lee (Korea Univ., Korea)
- Yong-Peak Kang (The Catholic Univ. of Korea, Korea)
- Se Byoung Lee (National Cancer Center, Korea)
- Byoung-Ho Choi (Univ. of Seoul College of Medicine, Korea)
- Heon-Ly Park (Seoul National Univ., Korea)
- Jung-Ho Han (Seoul National Univ., Samsung Hospital, Korea)
- Karen Wark (King's College London Univ., Korea)
- Wayne R. (Stanford Univ., USA)

<http://www.ksmp.or.kr>

The International Symposium on Medical Physics for
20th Anniversary of KSMP and
 41st Annual Meeting of KSMP conjunction with
 Symposium of NMI² and 8th Annual Meeting of KSMPR

Theme *Leading the Future Medical Physics*

September 15 (Wed) - 17 (Fri), 2010
 Maria Hall, (1F) Songeui Building, The Catholic University of Korea, Seoul, Korea



President elect IOMP



President, AFOMP



President, AAPM



President, JSMP



President, CSMP



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 DEPARTMENT OF BIOMEDICAL ENGINEERING

Activities of KSMP

Journal
Report

Education
Training
Certification

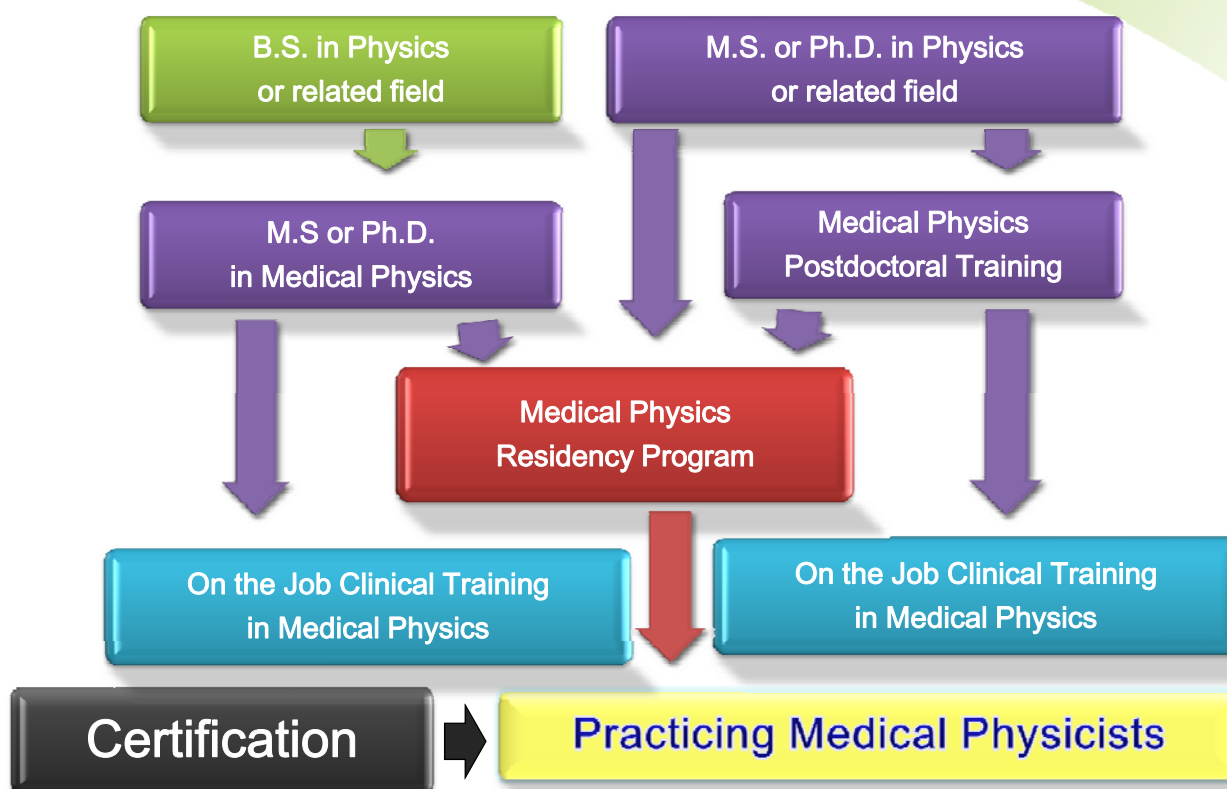


Korean Society of
Medical Physics

Collaboration
with
International
Organizations



Education ▪ Training ▪ Certification



Education Program from University

Regular Graduate Course

- 6 approved graduate schools
- About 15 graduates per year



2002 Course Works

- Biomedical Physics I
- Biomedical Engineering I
- Seminar on Biophysical Science
- Research Projects on
- Advanced Biomedical
- Advanced Biomedical
- Therapeutic Radiology
- Diagnostic Radiology
- Magnetic Resonance
- Magnetic Resonance Imaging & Clinical Practice
- Physics in Nuclear Medicine & Clinical Rotation
- Biomechanics

1 Most programs are active for therapy

2 Some programs are for nuclear medicine

3 Programs are new to diagnostic radiology

Education Program from KSMP

2004 Education Course Education program from KSMP

■ Education from KSMP

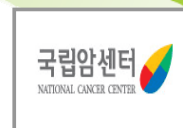
- Advanced education program for junior MP
- One time per 1-2 year

Day-Year	Contents	Speaker	Fraction time
Sep. 18. 2004	Role of Medical Physicist	WS. Kang	1 hour
Sep. 18. 2004	Dosimetric Theory	BC. Cho	3 hours
Sep. 19. 2004	Introduction of Linear accelerator in Medicine	JG. Kim	4 hours
Sep. 19. 2004	Linac QA	RN. Lee	2 hours
Oct. 02. 2004	Radiation Physics (Interaction)	SH. Kim	3 hours
Oct. 03. 2004	Photon beam therapy and Dose Calculation	RN. Lee	4 hours
Oct. 16. 2004	MRI Theory and QA	BY. Choe	4 hours
Oct. 17. 2004	LDR in Brachytherapy	YH. Ji	2 hours
Oct. 17. 2004	Dose Correction in KPDA	KY. Kim	2 hours
Oct. 17. 2004	HDR in Brachytherapy	YY. Han	2 hours
Oct. 30. 2004	Radiation Protection	JK. Lee	4 hours
Oct. 31. 2004	SRS	DJ. Lee	3 hours
Oct. 31. 2004	Shielding Calculation in Treatment Room	YH. Ji	2 hours
Nov. 13. 2004	Radiobiology	MJ. Cho	4 hours
Nov. 14. 2004	Human Anatomy	HC. Park	3 hours
Nov. 14. 2004	Molecular basis of cancer	HC. Park	2 hours
Nov. 27. 2004	Oncology	SD. An	4 hours
Nov. 28. 2004	Photon beam Dose Calculation Algorithm	BC. Cho	3 hours
Nov. 28. 2004	Treatment Planning	SH. Kim	2 hours
Dec. 11. 2004	Electron beam Therapy	SY. Park	2 hours
Dec. 12. 2004	Nuclear Medicine 1	CW. Cho	3 hours
Dec. 12. 2004	Nuclear Medicine 2	Y. Choi	2 hours
Dec. 18. 2004	Ion Chamber 1	JG. Kim	2 hours
Dec. 18. 2004	TLD in Radiation Detector	KH. Kim	2 hours
Dec. 19. 2004	Diode in Radiation Detector	YG. Oh	2 hours
Dec. 19. 2004	Ion Chamber2 in Radiation Detector	KC. Shin	2 hours
Dec. 19. 2004	Film dosimetry	DH. Chung	2 hours
Jan. 08. 2005	IMRT	BY. Lee	4 hours
Jan. 09. 2005	Computed Tomography (CT)	HJ. Chung	3 hours
Jan. 22. 2005	Brachytherapy QA	JH. Choi	2 hours
Jan. 22. 2005	Total Body Irradiation (TBI)	YY. Han	2 hours
Jan. 23. 2005	Particle Accelerator	SY. Park	2 hours
Jan. 23. 2005	CyberKnife	DH. Lee	2 hours
Feb. 05. 2005	Dose Correction Protocol	DG. Shin	4 hours



Professional Training

- **Accredited Residency Program**
- **Medical Physics Academy of National Cancer Center**



The NCC's medical physics residency program is an **KSMP accredited program** intended to provide **comprehensive training and experience in radiation oncology physics** to candidates with a **Ph.D. degree** in physics, **medical physics** or a closely related field

- 1st Residency program in Korea since 2004
- Fully accredited by KSMP as 2 years program
- Currently 4 residents (1st year-2, 2nd year-2)
1 medical physics fellow



Other Residency Programs

▪ Severance Hospital

- Started in 2007. 03
- 2 year residency program
- Medical Physics, Nuclear Physics or Physics M.S degree required



▪ Asan Medical Center

- Started in 2007. 09
- 2 year residency program
- Medical Physics, Nuclear Physics or Physics M.S degree required



▪ Collaboration Training at CMC

- Graduate school
- Collaboration with hospitals in Korea and foreign countries



▪ Ewha Woman's University

- Started in 2008.09
- 2 year residency program
- MS or PhD in Medical Physics related area



Summary for Education and Professional Practice of MP in Korea

▪ Education Program

- 3 types of educational programs
- 6 Universities offer graduate program
- Accredited education program (In progress)

▪ Professional Training Program

- 1 accredited residency program and 1 is in the process
- 2 centers offer residency programs
- Many clinical training center



Certification Examination

- **Korean Board of Medical Physics (KBMP)**
was established in 1991
- The **KBMP** provides the exams

	General	Part I	Part II	Part III
Written	Basic radiobiology Radiation protection Nuclear physics Basic statistics	Radiation Measurement (40) Radiation Physics (40) Medical modality (20)	Radiation Biology(20) Radiation Protection(40) Anatomy& Physiology(20) Elective exam(20) 1) Radiation Oncology 2) Radiology 3) Nuclear medicine	Diagnostic Radiologic Physics (100) Therapeutic Radiologic Physic (100) Medical Nuclear Physics (100)
Oral Exam	Radiation Protection and Patient Safety, Patient-Related Measurements Image Acquisition, Processing and Display, Calibration, QC & QA, Equipment			

Eligibility

▪ KBMP Qualification

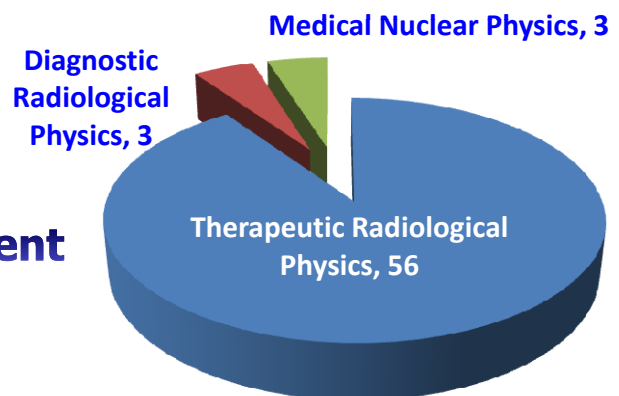
- Graduate degree in medical physics, physics, physical science or engineering
- 3 years of full time active association
- Full time for 2 year NCC medical physics resident program

▪ Certification from KSMP

- 62 Certified board member

▪ Certification from Government

- Processed by government!



Maintenance of Certification

- **Established the regulation in April 1 2006**
- **Need to acquire: 10 credits CME/year**
 - 4 credits from attending annual KSMP meeting
 - 2 credits from attending continuing medical education program offered by KSMP
- **Cancel certification if the personnel does not meet the requirements (10 points/year) for the 3 years in a row**



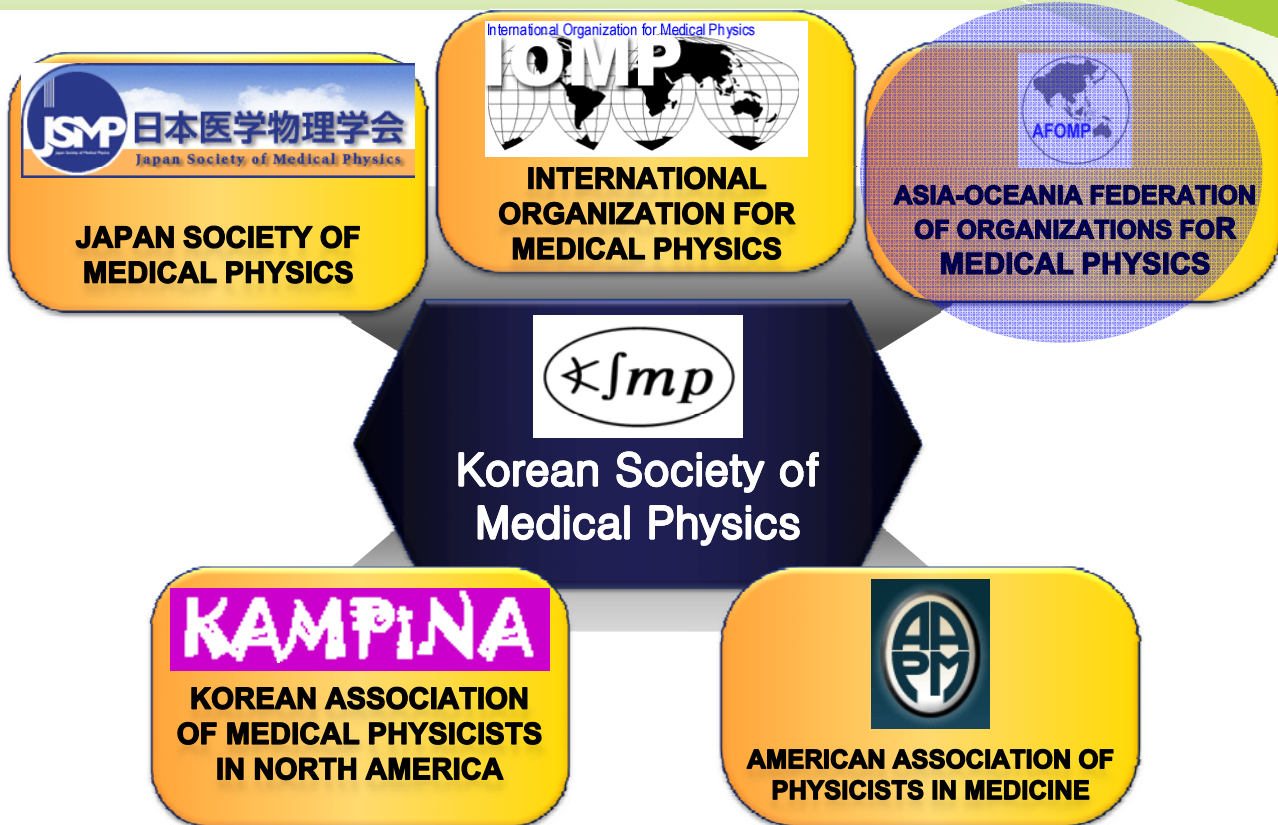
Credits

Subject	Credits	Limit
1. Attend KSMP Annual meeting	4 /meeting	-
2. Continuing medical education offered by KSMP	2 /participation	-
3. Attend Annual meeting of other related society	2 /participation	2
4. Paper publication	1 st /Corresponding author: 4 /paper, Others: 2 /paper	4
5. Lecturers	2 /hr	4

In the Future, We need to ...

- Obtain accreditation from an International board
- Adoption of Medical Physics professional licensure
 - the Ministry of Science & Technology
 - the Ministry of Health and Welfare
- Two-Step Qualification
 - MP
 - Qualified MP
- CPT code for MP's work in hospital
- Offer specialized accreditation of medical physics educational programs for degree-granting programs, and improve the quality of accreditation for clinical residencies, continuing education and short courses

Collaboration with International Organization



Welcome ~!

11th Asia-Oceania Medical Physics (AOCMP) 6th Japan-Korea Joint Meeting on Medical Physics



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DEPARTMENT OF BIOMEDICAL ENGINEERING

Acknowledgements



Thank you for your attention !

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