



#### **REGIONAL RATING SYSTEM**

# University Performance Metrics (UPM)

Introduction and Methodology

#### Content



- Introduction
- Criterion & Indicators
- Results

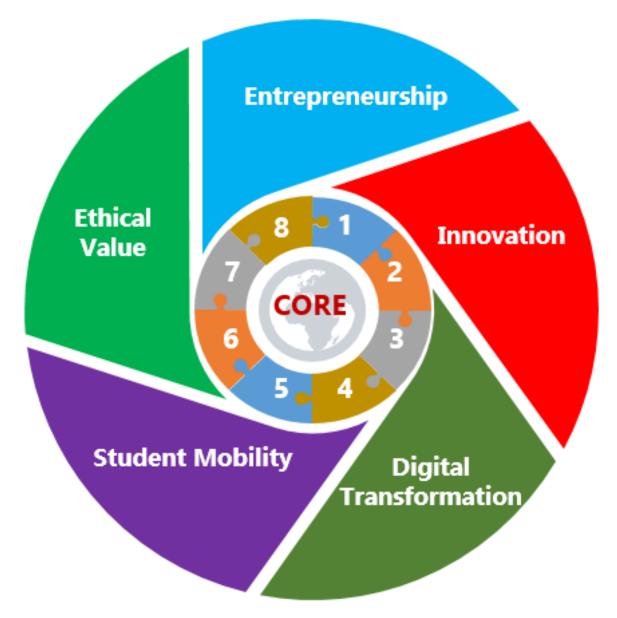
#### Introduction



UPM is a rating system of university performance metrics initiated and developed by the Vietnam National University, Hanoi to assess the responsiveness of the Third Generation Universities in the Industrial Revolution 4.0 (4IR) era. According to this system, besides the traditional features, the core indicators related to innovation and entrepreneurship; smart university and digital transformation; future-ready training are all integrated.

In the methodology used for UPM, universities are evaluated against 54 indicators falling into 8 categories. Universities can use these key performance indicators KPIs (and corresponding assigned software) for their self-benchmarking. After the assessment of UPM, universities would be awarded an overall star, as well as a score for each category, which ranges from 1 to 5 stars corresponding to the sum of the points achieved for the indicators.





#### - RANKING CORE

#### - RATING

- 1. Strategic Governance
- 2. Education
- 3. Research
- 4. Innovation
- 5. Innovation Ecosystem
- 6. IT infrastructure
- 7. Internationalization
- 8. Community Services

#### - 4.0 METRICS

- 1. Entrepreneurship
- 2. Innovation
- 3. Digital Transformation
- 4. Student Mobility
- 5. Ethical value

#### **UPM Stars**



- UPM 5 stars universities have high national reputation and are internationally recognized
- UPM 4 stars universities are well-known not only in the country but also in the region
- UPM 3 stars universities have their roles in the national higher education (HE) system and can facilitate student mobility in ASEAN countries.



#### Content



- Introduction
- Criterion & Indicators
- Results

## Criterion & Indicators



Criterion & Indicators	Weight
1. Strategic Governance	60
2. Education	350
3. Research	200
4. Innovation	110
5. Innovation Ecosystem	60
6. IT Infrastructure	100
7. Internationalization	60
8. Community Services	60
TOTAL	1,000

# 1. Strategic Governance

No.	Criterion & Indicators	Weight	Minimum rating level
1.1	Strategy The university's strategy reflects vision, mission and culture as well as strategic goals of education, research and community service; innovation & entrepreneurship orientation and development of the smart, digitalized university in response to the demands of fourth industrial revolution	15	1-7
1.2	Plan  Mid-term and short-term plans of the institution and units in the institution are aligned, assuring the implementation of the contents and in the development strategy	10	1-7
1.3	Organizational structure and management Related units/divisions are established and have specific functions to perform strategic tasks (in particular for the functions of innovation, entrepreneurship, digital transformation), with reasonable size and performance	10	1-7
1.4	Implementation  Documents, policies and resource allocation to carry out missions and achieve goals are established and implemented, especially resource investment for achieving the goals of innovation, starts-up and building a smart university	15	1-7
1.5	Accreditation and ranking  Having got the results of institutional accreditation or/and national/international ranking for the institution or related field.	10	5-10





# 2. Education

No.	Criterion & Indicators	Weight	Minimum rating level
2.1	Quality of incoming students  The average score (the admission percentage) of incoming freshmen in national university entrance exams of all disciplines in the last 3 consecutive years	40	12-25
2.2	Size of academic faculty  The proportion of academic staff in the total number of undergraduate and postgraduate students	35	2-8%
2.3	Academic faculty quality The proportion of academic faculty staff with a Ph.D. degree in the total number of academic staff	40	3-70%
2.4	Faculty reputation  The proportion of lecturers bearing titles of professor or associate professor to the total number of faculty staff	35	1-20%
2.5	Size of graduate education  The proportion of graduate education (MSc. and Ph.D. students) to the overall scale of the institution's education	30	20%
2.6	Size of doctoral education  The average number of Ph.D. degrees awarded in the last 3consecutive years	20	5





#### 2. Education

No.	Criterion & Indicators	Weight	Minimum rating level
2.7	Program's expected learning outcomes The program's ELOs are stated approaching the requirements of 4IR	15	1-7
2.8	Updating and adjusting conventional curriculum structure  The conventional curriculum structure is updated to be open, flexible with broad foundation knowledge and highly responsive to the requirements of 4IR.	15	1-7
2.9	Developing new training programs directly related to 4IR  The new programs are related to basic 4.0 technologies such as IoT, AI, Big Data, Robotics, 3D printing technology, Material and Sensor technology, Energy, Biotechnology, or integration of all the above technologies, Digital Economy, Creative and Culture Industries	20	1-5
2.10	Personalized learning Bring into full play of the advantages of credit-based training, reaching the goal of individualization and/or personalization in training; encouraging cooperation among the faculties in the institution, with other universities and industries	10	1-7





#### 2. Education

No.	Criterion & Indicators	Weight	Minimum rating level
2.11	Students' research and start-up projects Student research and start-up projects are organized effectively. International, national and ministerial-level or equivalent prizes are attained	15	1-7
2.12	Student's satisfaction with the teaching 90% of student satisfaction with scaled scores down to 50% of student satisfaction. Results conducted by the institution applied to all the education programs	20	90%
2.13	Employers' satisfaction with the teaching 90% of employers satisfaction with scaled scores down to 50%	20	90%
2.14	Student employability The percentage of graduates have jobs within 12 months	20	90%
2.15	Student academic awards  The percentage of awards for research, innovation, start- up, Olympic competition at ministerial, national,	15	1.0%

international and equivalents related to the training

fields of the institution in the last 3 years





# 3. Research

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No.	Criterion & Indicators	Weight	Minimum rating level
3.1	International publications  The average number of ISI and/or Scopus research papers per academic staff in the last 5 years	100	1.5
3.2	Research quality  The average number of citations per ISI-Scopus research paper per academic staff in the last 5 years	60	10
3.3	Academic/scholarly books publication  The average number of academic/scholarly books with respect to a post-graduate discipline and field in the last 3 years	20	2
3.4	Prolific researches  The percentage of faculty staff getting ministerial, national or international academic awards in the last 5 years	20	0.5%



# 4. Innovation



No.	Criterion & Indicators	Weight	Minimum rating level
4.1	Nationally recognized intellectual property The number of copyrights, utility solutions, patents registered with national IP offices during the last 5 years	30	20
4.2	Globally recognized intellectual property  The number/proportion of patents registered with international IP offices during the last 5 years	10	5
4.3	Revenue for research and innovation  The average proportion of sponsorship revenue for research, R&D, innovation and start-up to the total revenue during the last 3 years	50	15%
4.4.	Start-up businesses and spin-off companies Start-up businesses and spin-off companies developed from faculty staff's and students' research outcomes during the past 5 years	20	5



# 5. Innovation Ecosystem

No.	Criterion & Indicators	Weight	Minimum rating level
5.1	Research, R&D and innovation facilities  Education programs have adequate laboratories and equipment for practice, research, R&D and innovation	20	1-7
5.2	Creative co-working space and start-up supports  Space for innovation and start-up support is where faculty staff, students and start-up community share ideas, design, construct and develop new products	20	1-7
5.3	Business incubator  A business incubator is a unit/section that provides services, office space, management training to nurture start-ups to develop into independent businesses	10	1-7
5.4	Business/industry partners  A number of businesses, industries and organizations that have collaboration in students' research, start-up projects; provide funding/grants for customized research or/and collaboration in R&D resulting in co-publications and shared IP license/industry co-patents	10	2





#### 6. IT Infrastructure

No.	Criterion & Indicators	Weight	Minimum rating level
6.1	Network infrastructure and information connection capacity  Equipped with information connection system to ensure the administrative procedures can be carried out online	10	1-7
6.2	Competence in quality analysis and management  Database and statistics software for key fields: education, research, staff, finance, infrastructure & facilities, learners and quality assurance database	10	1-7
6.3	Digital scholarly resources  The number of digitized learning materials and copyrighted digital documents on the institution's website/repository per faculty member	10	20
6.4	Learning resource access Statistics of access frequency to digitalized learning resources	10	5
6.5	Degree of online academic interaction  Frequency of average connection, interaction among faculty staff and students in the course group (twice/student/week), counted by specialized tools)	10	2



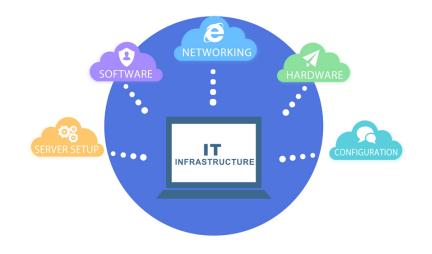
# **IT Infrastructure**



#### 6. IT Infrastructure



No.	Criterion & Indicators	Weight	Minimum rating level
6.6	MOOC and digital lessons (e-Learning)  The average number of online or/and MOOC courses of the total number of education programs with necessary links demonstrated in the institution's portal	10	5
6.7	Application of Cyber Physical System (CPS) Several virtual practice laboratories and/or manufacture factories related to the application of IoT, Al having copyright are being in use for the total number of tertiary programmes	10	3
6.8	Wifi access WIFI access across 75% of campus area (excluding classrooms, lecture halls, administration and library places)	10	75%
6.9	<b>Duplication check and research ethics</b> Use at least 01 copyrighted software for duplication-checking and research ethics	10	1
6.10	Webometrics index Webometrics Ranking assess the visibility and accessibility of the institution's web learning materials and academic publications.	10	1-100



## 7. Internationalization

No.	Criterion & Indicators	Weight	Minimum rating level
7.1	Using a foreign language as the medium of instruction  The number of active programs using mainly a foreign language as the medium of instruction whose degrees are granted by the institution	10	1-3
7.2	International joint training programs  The number of active international joint training programs, the degrees of which are granted by a foreign university or co-granted by the institution and a foreign university	5	1-3
7.3	International students  2% of students with foreign nationalities studying in formal degree programs (to the total number of the students in the institution)	10	2%
7.4	International faculty 5% of academic staffs with foreign nationalities (to the total number of faculty), who touch at least one subject/course or spent at least 3 consecutive months teaching or doing research at the institution	5	5%
7.5	Inbound exchange students  3% of students holding foreign citizenship to study or do internship the credits of which can be transferred.	5	3%





## 7. Internationalization



No.	Criterion & Indicators	Weight	Minimum rating level
7.6	Outbound exchange faculty 5% of academic staffs (to the total number of faculty), who touch at least one subject/course or spent at least 3 consecutive months teaching or doing research at the institution abroad	5	5%
7.7	Outbound exchange students 2% of students studying or doing do internship the credits of which can be transferred	5	2%
7.8	International conferences or symposiums  The number of international conferences or symposiums hosted by department or institution per discipline in the last three years	5	1
7.9	International research collaboration The proportion of ISI-Scopus publications affiliated with international scientists	10	0-90%



# 8. Community Services



No.	Criterion & Indicators	Weight	Minimum rating level
8.1	Life-long learning capacity enhancement The average number of short-term courses is designed to efforts to tailor education to meet the life-long learning requirements	20	1
8.2	Activities promoting and/or implementing the university's impact on the community sustainable development, such as climate change, energy conservation program, water conservative program, recycle program, transportation policies and the realization of the UN's 17 sustainable development goals	20	1
8.3	Social norm promotion  Community engagement activities (between the university and sociopolitical organizations) to support and foster harmoniously social norms on a large scale and effectively	20	1-5



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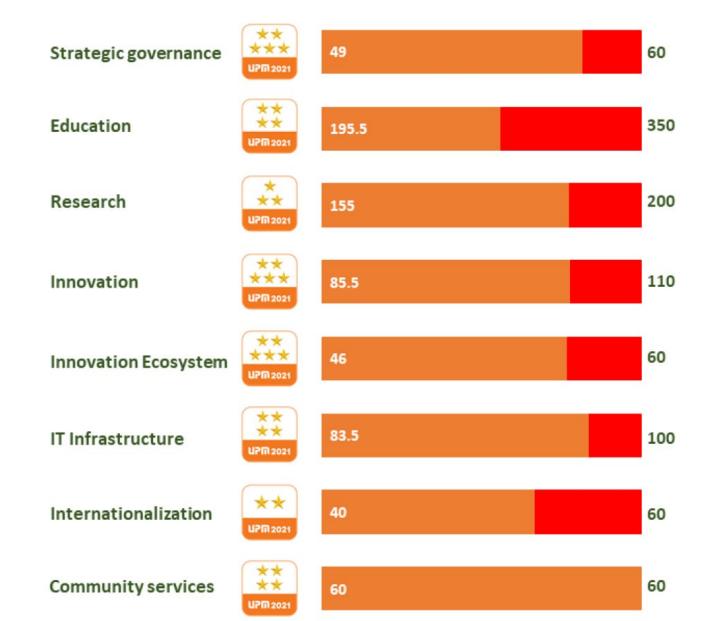




Total student size:	23346
Undergraduate students:	22952
Master students:	394
Doctoral students:	0
Total number of academics:	1001
Full-time faculty staff:	1001
Part-time lecturers/professors:	0
Full-time faculty staff with doctorate degree:	230
Full-time faculty staff bearing titles of Professor or Assoc. Professor:	36
Total number of education programs:	40
Undergraduate programs:	35
Master programs:	5
Doctoral programs:	0

#### **CATEGORY RATING**





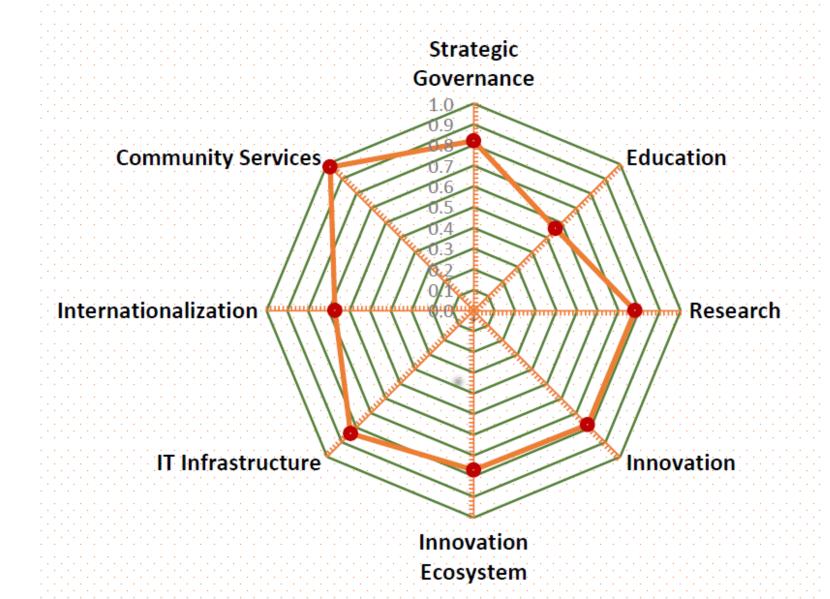
#### **STRATEGIC GOVERNANCE**



No.	Criterion & Indicators	Weight	Minimum rating level	Real data	Score	Awarded stars
1.	Strategic Governance	60			49	* * * * UPM 2021
1.1	Strategy  The university's strategy reflects vision, mission and culture as well as strategic goals of education, research and community service; innovation & entrepreneurship orientation and development of the smart, digitalized university in response to the demands of fourth industrial revolution	15	1-7	6	13	* * * * * * UPM 2021
1.2	Plan  Mid-term and short-term plans of the institution and units in the institution are aligned, assuring the implementation of the contents and in the development strategy	10	1-7	6	8.5	* * * * * * UPM 2021
1.3	Organizational structure and management Related units/divisions are established and have specific functions to perform strategic tasks (in particular for the functions of innovation, entrepreneurship, digital transformation), with reasonable size and performance	10	1-7	5	7	★★ ★★ UPM 2021
1.4	Implementation  Documents, policies and resource allocation to carry out missions and achieve goals are established and implemented, especially resource investment for achieving the goals of innovation, starts-up and building a smart university	15	1-7	5	10.5	★★ ★★ UPM2021
1.5	Accreditation and ranking Having got the results of institutional accreditation or/and national/international ranking for the institution or related field.	10	5-10	10	10	*** *** UPM 2021

## **GENERAL ANALYSIS**







# ขอบคุณครับ