AREA 6: EDUCATIONAL RESOURCES

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Strengths of the HEP in meeting its goals	1. Most of the major physical facilities available to conduct educational programmers' of the HEP. The laboratories and workshop are provided at the rate of 20-22 meter2 per student as EPU guidelines.
	2. Under the development budget, government allocations are given quarterly based on five years planning. All faculties to meet the teaching and learning requirement are to plan facilities based on student projection in five years from 2010 till 2015. (RMK-10). In the Tenth Malaysia Plan all unmet needs and projected needs are identified and seek direct expenditure.
	3. In the year 2009, FKP and part of FKM moved to main Campus to fulfill at the FTMK, Teaching Factory and Kompleks Makmal Fasa B, without ignoring academic standard requirement.
	4. FKM and FKP will be given a priority to be constructed in 10th Malaysian Plan.
	5. The Research and development objective under the University Strategic Plan provides the basis for the future directions in research and innovation activities at UTeM. The objectives and the priorities in the plan were also shaped by and aligned to the relevant government

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	policies, in particular the National Higher Education Strategic Plan and also the National Innovation Policy.
	6. UTeM has identified Advanced Manufacturing Technology (AMT) as its niche area. The Niche Area is supported by seven thrust areas which cover several research clusters. Activities within the research clusters of the thrust area are conducted in research laboratories equipped with the key and supporting equipments, computers and dedicated software.
	7. Research Policy and Guideline was approved by Senate Meeting No. 4/2005 on 26 May 2005 through paperwork number 20/2005.
	8. UTeM provides short term grant worth up to RM 30k per project and Research Assistant Schemes to assist in conducting the research works in addition to the normal government source of funding through MOSTI and MOHE.
	9. University Research Information System (URIS) has been developed by the university to facilitate research and innovation activities. The System enables online application of research grants as well as monitoring of research activities and progress. These include but not limited to financial management, Asset procurement and inventory.

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	10. The University sets out its position with regard to good research practice in all its research activities. For Graduate students Research Methodology programme (MPSW 5013 and PPSW 6013) are compulsory subject which contain topic on ethic in research. The Research Policy and Guideline clearly emphasise on ethics and misconduct in research which has to be adhered to by all academic staffs and students. 11. Intellectual Property and Commercialization policy was approved by the university to encourage and promotes commercialization activities of the university. 12. Links between research and commercialisation are clearly stated in Research Policy and Guideline (Policy-Section 5.0 and on Guideline- section 2.23). Jawatankuasa Tetap Senat Penyelidikan, Inovasi dan Perhubungan Industri has indicated in its Term of References the link between research, development and commercialisation. 13. MoU and MoA signing between UTeM and Industrial partners shows the link for commercialisation of research products. UTeM has also setup UTeM Holdings Sdn. Bhd., a wholly own holding company, as a vehicle to commercialize research product of the university.

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	14. UTeM Library as a one stop center and resource sharing in technical subject among Universities (IPT) and communities through:- - Online Databases that are subscribed to support the development of learning and research. - Local Databases developed by the library to support information needs through online such as exam papers, seminar papers, thesis abstract etc. 15. We are developed our collections based on new titles and edition (books or audiovisual materials) to support study and teaching, research and consultancy. 16. Without come to the library users still can utilize library services through online:- - Renewal item from outside or inside campus through internet network. Online renewal service can be made if and only the items are not being reserved by other users; the items not over the due date and no have fines. - Online Public Access Catalogue, also known as OPAC, is an online search engine that allows members of the public to search through Internet at any time and place for library materials from a comprehensive database of bibliographic records called the Union Catalogue, contributed by various participating libraries.

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	- Reservation items to ensure all the users have same chance to borrow the items which is still in on loan status. Users who made the reservations are able to get their reserved items once; the borrower returned the items. 17. As references among Universities by using RFID technologies. 18. We are conducted in-house training for information literacy program to the library customers as an attempt to enable them to master searching techniques, disseminate information on library collections, facilities and services and thus making the library customers more self-directed and assume greater control over their own research and learning. - On Schedule - User education class for new intake students – undergraduate and post-graduate. - Information Skill for Research Assistant and Research Officer. - Upon Request – This program open at any time and user can request it by group. - SLAB – This program focuses to support lifelong learning program for lecturer to help them to improve the method of information searching using library facilities to do research.

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	19. Most of libraries staff are qualified in library field to support community to develop their resource centre. - Most of the librarians are qualified in the library field and well-trained. Librarian and library support staff are being sent to the library and other management courses to improve their communication skills.
Areas of concern that need to be addressed	1. Limitations fund of the development. 2. Current development of the academic planning will affect physical development requirements. 3. Funding constraints in supporting the research activities related to procurement of equipments and physical facilities as well as support for postgraduate research students has always been a constant challenge to the university. 4. Being a new university, the small pool of experienced research leaders and the priority given to teaching and learning activities has slightly hampered the R and D progress, although not seriously. 5. Online Databases - This service being exists as a concern of UTeM Library for their users

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	because they can get more information widely to help them complete their research, study and teaching. Anyway, library can subscribe more titles if have enough budget. 6. Service Facilities - Even though the library facilities and services are provided but the quantity is still not enough to support user needs such as books, e-book, on-line data bases and etc. - On-line borrowing - On-line reservation - On-line trial databases - PC for OPAC searching is not enough. - CDNet 7. Information Literacy - Lack of cooperation from user to participate information literacy program provided by the library. 8. Upgrade Library Systems – The increasing number of library collections and high usage of library systems, library must upgrade that systems to ensure all the services run smoothly and fulfill the user needs.
Strategies for maintaining and enhancing the strengths	1. Master planning and landaus development for Kampus Induk (Until 2010) area ready prepared by university since 2001.

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	2. Master Planning for the development refer to Needs of Statement Pusat Tanggungjawab and University Strategic Planning . 3. Revised space development planning- depend on the current requirements. 4. The University will complement its existing strategies for the creation of internationally competitive research centers with the development of a range of research priority clusters. These will be outstanding, multidisciplinary research groupings that are well-placed to leverage national and international funding. 5. The University is committed to the further enhancement of its research quality and productivity by investing in excellence and by exploring new, innovative ways of collaborating that will ensure the generation high quality research outcomes closely aligned to state, national and international research priorities. 6. First review of the Research Policy and Guidelines was done on 26 December 2008 by the University Research Committee. The committee proposed to combine the research policy with the Intellectual Property and Commercialization Policy to formed The Research and Innovation Policy and Guideline. The policy is in the process of senate approval.

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	7. The faculty undergoes regular curriculum review exercise in order to ensure that students will be learning about recent advances as well as latest theories, techniques and technologies. Experienced research and teaching staff with expertise in the specialist fields together with industry advisors sits on the Curriculum Advisory Panel of the faculty. The recommendations of the panel are brought to the Faculty Academic committee and eventually to the Senate for approval. 8. The university strongly encourages researchers to engage undergraduate and postgraduate students to participate in research activities and these initiatives are clearly reflected in the grants awarded by the university. At undergraduate level, the student's final year projects are supported by the grants through purchase of equipments and accessories. At the postgraduate level, graduate research assistants are engage to conduct research for their masters and PhD degrees by the number of research grants awarded by the university and other funders. 9. UTeM organised an annual programme to recognise the achievement of researchers that include writing in journals, books and participation in exhibition. The programme is called Malam CIPTA- Cetusan Inspirasi Projek Teknikal dan Aplikasi. The successful researchers are awarded monetary reward based on the impact factor of the journal where their papers were

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	published.
	10. UTeM has participated in National and International Research Exhibition and Competition. UTeM also organized internal seminar for research evaluation which called Research Achievement Seminar (REACH). UTeM also collaborated with UMP, UniMAP and UTHM which form a network called Malaysian Technical University Network (MTUN) in organizing research related programmes.
	11. The formation of Center for Research and Innovation Management (CRIM), the administrative body that manages, coordinates and support research and innovation activities of UTeM. CRIM also provides support to UTeM Senate in implementing university's policies on Research, Intellectual Property and Commercialisation and thereby ensuring the integrity of the research processes.
	12. UTeM has further enhanced UTeM Research Information System (URIS). The system is continuously improved to enable online application of research grants as well as online monitoring of research activities and progress. This includes research details, research financial management, research output, policy and forms.

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	13. As a one stop center and resource sharing in technical subject. - UTeM's Library will continue its effort to provide quality and professional services according to university's vision to be the world's innovative and creative technical university. - To deliver and promote information services to the clients. 14. To enhance the efficiency of knowledge and information sharing with the clients. 15. To diversified the facilities and services. 16. To deliver efficient, accurate and quality services by putting emphasis on the clients' satisfaction. 17. To cater the information needs of the client by providing resources which fulfill the teaching, learning, research and consultancy requirements.
Steps that have been taken to address the problem areas	1. Any physical development issues to be presented and discussed to the Development Committee comprising of Vice Chancellor as the Chairman, the two Deputy Vice Chancellor, Registrar, Bursar, Director of Development, Director of ICT and Deans of Faculties. 2. Committee will decide on the proposal scope of works approval and the ceiling cost and list of

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	the space priority.
	3. Recruitment of research experience academic staff, both locally and from abroad.
	4. Emphasis will be given to collaboration with national and multinational strategic industries.
	5. The establishment of new vehicles for the coordination of research activity and the strengthening of international linkages will increase the research productivity, enhance the quality and value of research activities.
	6. Build on research areas in which we are already strong, and diversify the sources of research funding.
	7. Restructuring the acquisition policies. - Applied more annually budget to subscribed more packages of online databases and to upgrade the new library systems. - Buy more titles of books and audio visual material. - Subscribe more subject online databases.

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	8. Revised policies and procedure of services.
	
	   - To diversified new facilities and services.
	
	   - Encourage more user to participate in information literacy program that had been highlighted during the 'Jawatankuasa Fokus Pelanggan' meeting, promoting in Library Portal.
	
	   - To assign Library Liaison Officer (LLO) to be as a middle person between the library and faculties to serve their information and library needs. At the same time, they also promotes new library services & facilities to the faculties.
	
	9. Restructure policies in-house database.
	
	10. To encourage information sharing among the user.