MINUTES
of the
Board of Control
Michigan Technological University
Houghton, Michigan

Meeting of
February 28, 2008
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MINUTES OF THE FORMAL SESSION OF THE BOARD OF CONTROL OF MICHIGAN TECHNOLOGICAL UNIVERSITY held pursuant to due call in Ballroom B of the Memorial Union Building on the campus of Michigan Technological University in the City of Houghton, Michigan at eight thirty o’clock on the morning of February 28, 2008.

The Board of Control of Michigan Technological University met in formal session at the University's campus at Michigan Technological University in the City of Houghton, State of Michigan, at 8:30 a.m., on the 28th day of February, 2008, in Ballroom B of the Memorial Union Building. The place, hour, and date duly established and duly published for the holding of such a meeting.

The meeting was called to order by the Chair, K. Clark, and a quorum was declared present.

The following members of the Board of Control were present:

   K. I. Clark, Chair
   L. D. Ashford
   D. J. Brule
   R. A. Gronevelt
   S. J. Hicks
   R. A. Kershner
   M. K. Richardson
   G. D. Mroz, ex officio

The following members were absent:

   R. A. Reck

Also present during part or all of the session were: Dale R. Tahtinen, Secretary of the Board and Vice President for Govermental Relations; Daniel D. Greenlee, Treasurer and Chief Financial Officer; George Butvillas, Chair of the Michigan Tech Fund Board of Directors; Lesley Lovett-Doust, Provost and Vice President for Academic Affairs; David D. Reed, Vice President for Research; Shea McGrew, Vice President of Advancement and Marketing; Les Cook, Vice President for Student Affairs, Ellen S. Horsch, Vice President for Administration, Paul Tomasi, University Counsel; and various members of the faculty, administrative staff, student body, press and public.

Where item numbers are used, they refer to corresponding item numbers in the agenda, in the hands of the Board members.
I. APPROVAL OF AGENDA

Board Secretary, D. Tahtinen, recommended that the agenda be amended to add an additional recommendation to item V-A-5. Appointments Involving Tenure for Dr. Ching-An Peng.

It was moved by M. Richardson, supported by S. Hicks, and passed by voice vote without dissent, that the agenda of the formal session of February 28, 2008, be approved as amended.

II. APPROVAL OF MINUTES

It was moved by R. Kershner, supported by M. Richardson, and passed by voice vote without dissent, that the minutes of the formal session of December 14, 2007 be approved.

III. CLOSED SESSION

It was moved by M. Richardson, supported by R. Gronevelt, and passed by voice vote without dissent, that the Board of Control proceeds into closed session to discuss real property transactions. (A closed session for such a purpose is provided for in Section 8 (d) of P.A. 267 of 1976). (A roll call vote is required).

Roll Call Vote:
   Richardson – Yes Gronevelt – Yes
   Brule - Yes Clark - Yes
   Hicks - Yes Kershner – Yes
   Ashford – Yes

The motion passed.

The Board of Control reconvened in open session with a quorum present.

UPPCO Building

It was moved by M. Richardson, supported by S. Hicks, and passed by voice vote without dissent, that the Board of Control approves the purchase of the Upper Peninsula Power Company building located at 600 East Lakeshore Drive, Houghton, MI at a cost not to exceed $3,500,000.
IV. OPENING REMARKS

Chair’s Comments

Good morning, and welcome to our first meeting in 2008. In addition to thanking our Board members for traveling in this wonderful winter weather, I would also like to take this opportunity to welcome George Butvillas, Chairman of the Michigan Tech Fund, and thank him for taking the time to be here with us today.

As the topic of today’s meeting is Goal 3: Establish world-class research, scholarship and innovation in science, engineering and technology that promotes sustainable economic development in Michigan and the nation, it seems appropriate to begin with the fact that because of Michigan Tech’s outstanding research achievements, in the new state higher education funding proposed by Governor Jennifer Granholm, Michigan Tech stands to receive substantially more than the average increase in state appropriations, thanks to increases in federally funded research and a high graduation rate in science, technology, engineering and mathematics.

In the Governor’s proposed budget, Michigan Tech would receive 4.4 percent more than it did this fiscal year. The overall average increase proposed for Michigan universities is 3 percent. Under that proposal, Michigan Tech would receive approximately $51.2 million in state funding, compared to $49 million this year.

More than half of the increase proposed for Michigan Tech, or $1.1 million, is directly linked to the University’s research and graduate program.

In a budget released last Thursday, the Governor proposed a three-tier formula for higher education funding, based on the amount of federally funded research and commercialization of research, degrees completed — particularly in STEM fields (science, technology, engineering and math) — and the percentage of low-income students receiving federal Pell grants.

The visit of U.S. Senator Debbie Stabenow during Winter Carnival was a spectacular success as she was briefed on the extensive research being conducted in the areas of nanotechnology, alternative energy and sustainability. All three are areas of high interest for the Senator. She was joined by her husband Tom, and the extent of her commitment to being at Michigan Tech was highlighted when her flight from Minneapolis was cancelled on Friday, February 8 so the two of them rented a car and drove through challenging weather arriving late Friday night and then was available for several hours of briefings and a press availability on Saturday morning. Later that day, she toured the impressive snow statues as well as dropping the puck for the opening of our hockey game with the University of Wisconsin. Joining her on the ice was State Senator Mike Prusi, and Representative Mike Lahti, and later that evening Senator Stabenow addressed the Winter Carnival Athletic Gala. Senator Stabenow has continually been a strong supporter of Michigan Tech, for which we are most grateful. During her time in the U.S. Senate, she has played a key role in assisting Michigan Tech in procuring millions of dollars in federal support.
On February 25th, Michigan Tech and Michigan State hosted key forest industry stakeholders from the Great Lakes and from Sweden at a day-long summit to develop a prioritized list of questions that our two universities need to address to support the needs of Michigan's developing wood-based bioeconomy. As most of you know, the two universities recently established a formal partnership pledging to develop collaborative and complementary research, outreach, and economic development programs that support the forest-based biofuels and bioenergy industries in Michigan. Michigan Tech's involvement in this program through Woods to Wheels and other research entities brings faculty from all major units on Tech's campus in a truly interdisciplinary way to do what we were originally charged to do as a University, to promote Michigan's economy through our educational and research programs, with the strategic focus of maintaining and enhancing state, regional, and global sustainable systems.

I am pleased to recognize the following research awards.

Hennes Chair Professor John Sutherland of Mechanical Engineering-Engineering Mechanics was awarded $725,000 to continue his research on achieving environmental, industrial, and societal sustainability via the sustainable futures model. Working with Dr. Sutherland on this project is Professor John Gershenson of Mechanical Engineering-Engineering Mechanics; Professor Jim Mihelcic of Civil and Environmental Engineering, and Associate Professor Mary Durfee of Social Sciences.

In addition, Associate Professor John Gierke of Geological and Mining Engineering & Sciences received a $475,000 grant from the National Science Foundation to continue his research relative to resource protection in Pacific Latin America. Working with Dr. Gierke is Assistant Professor Gregory Waite, Professor Bill Rose, Professor Gregg Bluth, and graduate student Essa Gross of Geological and Mining Engineering & Sciences.

Last, but certainly not least, we want to call attention to our fellow Board member Russ Gronevelt. Russ has been appointed by Governor Granholm to serve on a 19-member citizens' advisory committee that will address a variety of transportation issues. The committee will advise a nine-member task force charged with reviewing alternatives to the State motor fuel tax, surface transportation, aeronautics service and overall transportation finance in Michigan. The advisory committee will review the studies, comments and recommendations submitted to the task force. Congratulations to Russ on his appointment.

President's Comments

President Mroz shared with the Board a video presentation of the 2007 Accomplishments.

V. ACTION/DISCUSSION ITEMS

V-A-1. Academic Affairs Committee Report

Mr. Gronevelt provided the Board with the following report.
The Committee spent a busy morning yesterday, looking at some of the issues related to Strategic Goal #3, “innovative research development and scholarship”. Provost Lovett-Doust will be giving us a general overview later this morning in her report.

Dr Jackie Huntoon, Dean of the Graduate School, gave a detailed analysis of graduate student numbers, goals for 2012, and an assessment of our capacity for graduate education at Michigan Tech. Graduate students will help us to make a bigger research impact and will in turn help increase research revenues and research publications. These in turn will support improvements in our reputation.

The goal of a permanent place in the top 50 public universities depends a lot on reputation—that Presidents and Provosts at other universities think of us. One way to spread the good news is by educating excellent Ph.D.s who go off and become professors in other universities.

The Ph.D. in Rhetoric and Technical Communication is an outstanding example of this; over 90% of its graduates are in academic positions, with 75% of them in tenured or tenure track faculty jobs. The rest have corporate positions. Mechanical Engineering also makes an important contribution; the department graduates a large portion of our Ph.D.s every year, making a solid contribution to Tech’s overall position.

Dr. Huntoon’s data analysis suggests we should set some priorities:

- Increase numbers of graduate student funding packages, in order to attract and secure the best graduate students
- Attract more scholarship money
- Address the need for space for offices and research areas for graduate students
- Promote faster graduation
- Develop new graduate degrees and certificates, especially in interdisciplinary areas
- Track graduate students as they go through each stage of their degree
- Assess the potential of new online or flexible learning models for coursework-based professional master’s degrees
- For graduate students, give a mix of duties as a teaching assistant, and some time to focus exclusively on writing the thesis, with financial support

The Committee received an update on the strategic hiring in Sustainability. Currently, the Blue Ribbon Committee is ranking candidates for the three endowed chairs, and groups of three research faculty with interests that match each candidate for the regular faculty positions are going through the 70 semi-finalists, and will have a short list soon, with interviews starting in mid-March.


A copy of Dr. Lovett-Doust’s report was included in the agenda book.
V-A-3. Final Approval for a Bachelor of Arts in Theatre and Electronic Media Performance

It was moved by M. Richardson, supported by R. Kershner, and passed by voice vote without dissent, that the Board of Control approves the Bachelor of Arts in Theatre and Electronic Media Performance.

V-A-4. Emeritus Rank

It was moved by R. Gronevelt, supported by R. Kershner, and passed by voice vote without dissent, that the Board of Control approves the following emeritus appointment:

1.) Dr. Jong K. Lee, Professor Emeritus, Department of Materials Science and Engineering

V-A-5. Appointments Involving Tenure

It was moved by R. Kershner, supported by M. Richardson, and passed by voice vote without dissent, that the Board of Control approves the appointment of Dr. Jean-Celeste Kampe as Associate Professor with tenure in the Department of Materials Science and Engineering effective July 1, 2008.

It was moved by R. Kershner, supported by M. Richardson, and passed by voice vote without dissent, that the Board of Control approves the appointment of Dr. Darrell Radson as Professor with tenure in the School of Business and Economics effective August 1, 2008.

It was moved by R. Kershner, supported by M. Richardson, and passed by voice vote without dissent, that the Board of Control approves the appointment of Dr. Stephen L. Kampe as Professor with tenure in the Department of Materials Science and Engineering effective August 18, 2008.

It was moved by R. Kershner, supported by M. Richardson, and passed by voice vote without dissent, that the Board of Control approves the appointment of Dr. Karla M. Kitalong as Associate Professor with tenure in the Department of Humanities effective August 18, 2008.

It was moved by R. Kershner, supported by M. Richardson, and passed by voice vote without dissent, that the Board of Control approves the appointment of Dr. Ching-An Peng as Professor with tenure in the Department of Chemical Engineering effective August 18, 2008.

V-B-1. Finance and Audit Committee Report

Mr. Kershner reported that the Finance and Audit Committee met twice since the last Board meeting.
The first meeting was conducted by a conference call and the purpose of the meeting was to discuss standardizing reports and a meeting format which was proposed by Steve Hicks. The Committee feels that these reports and format will be an improvement, and will help the Committee to better focus their meetings and be more efficient. The financial statements will highlight significant changes and trends.

At yesterday’s meeting, the Committee discussed the following:

Review of financial results – We are slightly under budget from the standpoint of full year projected results in the general fund, but in the current fund we are doing very well and we will have a positive result at the end of the year.

Capital projects – Reviewed proposed capital projects that are on the agenda. The KRC design center had no discussion as it is a self-funding project. There were no objections to the maintenance to the Memorial Union Building and the proposed acquisition of the Upper Peninsula Power Company building. There is a resolution for the financing of these three projects by the issuance of a bond. The Committee reviewed the resolution and didn’t see any reason to object to the resolution.

Sherman Field Synthetic Turf – Ms. Horsch presented the Committee with the proposal to install synthetic turf on the football field. Ms. Horsch told the Committee that the project would be funded by friends and alumni, however not all of the funding has been raised at this point in time, and the Board would need to advance the funds to begin this project.

The Committee also discussed several on-going subjects including the handling of financial exigencies and exactly what process do we go through when confronted with sudden bad news, and long term financial planning.

The Committee met with the Internal Auditor, Ms. Hughes. Ms. Hughes reviewed with the Committee the Executive Expenditures Audit and there was nothing unusual in those expenditures. There were a few items that we asked her to get on because she had raised them in audit reports in the past and they had not been followed up on and closed, and a couple of those are now closed, so we are satisfied with the state of all the open audit items.

Ms. Hughes reviewed a first draft of the Employee Business Guide which we mentioned last time. The guide as it is developing right now is a compilation of things that can be found in many places throughout the university. In addition, the University is working on a code of conduct.

There will soon be a student introduction to the Ethics Point anonymous reporting system that was put in place.

The Committee left Internal Audit and Legal Counsel with a couple of assignments, involving looking into some employment issues and travel policy issues that came up during the meeting.
V-B-2. Approval of the Keweenaw Research Center Design Center Project

The Keweenaw Research Center (KRC) is proposing to construct a Design Center to accommodate offices and laboratories on Lot 6 at the Houghton County Airpark. In May 2003, KRC purchased this lot in anticipation of expansion.

KRC research expenditures have increased by more than 30% over the past three years and the forecast is that this trend will continue. Current annual expenditures are approximately $3.5 million. Three additional engineers have been added and additional help through temporary labor contracts are anticipated to handle transient needs. The increase in military work is directly related to deficiencies uncovered in the current war fighting equipment. KRC is heavily involved in land mine route clearance systems as well as improvised explosive device (IED) neutralization. KRC’s role in these programs is to ensure the vehicles have high mobility and reliability. Recently KRC has won an award from the Tank Automotive and Armaments Command (TACOM) for successful efforts in saving lives in the war.

At the same time, KRC’s industrial contracts have increased. Bendix Heavy Truck Systems, Michelin Tire, and Daimler Chrysler have continued to utilize KRC’s winter test facilities for anti-lock brake development, winter tire testing, and well as traction control system development. In addition, KRC has added two new 4,000 square foot buildings to support this testing and both are 100% utilized in the winter months.

KRC’s ability to increase research expenditures beyond the current $3.5 million is limited by their ability to expand their facilities. They currently do not have any more office space and their lab space is fully utilized. Contracts continue to come in to support the Army as well as their traditional sponsors in industry. In addition, faculty continually request space at KRC for automotive related research as well as projects requiring national security controls.

It was moved by R. Kershner, supported by M. Richardson, and passed by voice vote without dissent, that the Board of Control approves expenditures for the Keweenaw Research Center to construct a new Design Center at a cost not to exceed $1,000,000.

V-B-3. Approval of the Memorial Union 3rd Floor Maintenance Project

The Isle Royale Ballroom in the Memorial Union hosted over 700 distinct events (banquets, meetings, entertainment, dances, conferences, etc.) in the last year. Of these events, 49% of the utilization was by Michigan Tech departments, 37% by student organizations, and 14% by the outside community.

While heavily used as a multi-purpose space, the 3rd floor lacks a sense of place that says Michigan Tech. The current condition of the room has become unacceptable for many student and departmental events as well as for some high profile gala events, Presidential functions, and for events anticipated during the upcoming public phase of the Capital Campaign. The lack of imbedded technology makes it a difficult and inefficient space for meetings and conferences and the divider panels are failing beyond reasonable repair.
Not only is upgrading the 3rd floor necessary to meet the requirements of a multi-purpose space suitable for a wide range of event types, the overall value of the student union is enhanced by this project thus helping with the important recruitment and retention issues related to enrollment. The ballroom maintenance and remodeling currently proposed meets these needs.

**FEATURES OF 3rd FLOOR MAINTENANCE**

- Retain multi-purpose use of space for student, departmental, gala, fund-raising and community events.
- Renew audio and visual technologies to include imbedded equipment with adjustable user interfaces
- Repair and replace wall finishes and floor finishes
- Update window treatments including light-filtering shades to use with new presentation technology
- Refurbish ceiling and retrofit to receive adjustable lighting, updated sound system and new presentation technology
- Relocate storage to create a more pleasing front of room and to functionally allow access to storage during functions
- Replace worn out room divider panels
- Improve interface with catering function
- Use sustainable finishes whenever possible

It was moved by R. Gronevelt, supported by S. Hicks, and passed by voice vote without dissent, that the Board of Control approves expenditures for the Memorial Union 3rd Floor Maintenance Project at a cost not to exceed $1,750,000.

**V-B-4. Approval of Bond Resolution for Campus Projects**

It was moved by M. Richardson, supported by S. Hicks, and passed by voice vote without dissent, that the Board of Control approves the Resolution Authorizing the Issuance and Delivery of General Revenue Bonds as presented.

RESOLUTION OF THE BOARD OF CONTROL OF MICHIGAN TECHNOLOGICAL UNIVERSITY
AUTHORIZING THE ISSUANCE AND DELIVERY OF GENERAL REVENUE BONDS AND PROVIDING FOR OTHER MATTERS RELATING THERETO

WHEREAS, the Board of Control of Michigan Technological University (the “Board”) is a constitutional body corporate established pursuant to Article VIII, Section 6 of the Michigan Constitution of 1963, as amended, with general supervision of Michigan Technological University (the “University”) and the control and direction of all expenditures from the University’s funds; and
WHEREAS, in the exercise of its constitutional duties and in order to properly serve the needs of students attending the University, the Board has authorized the acquisition, construction, installation and equipping of the capital improvements described in Exhibit A (the "Project"); and

WHEREAS, the financing of a portion of the Project through the issuance of General Revenue Bonds will serve proper and appropriate public purposes; and

WHEREAS, the Board has previously issued General Revenue Bonds in several series, and it may be appropriate and economic to refund all or any portion of the outstanding principal maturities of those General Revenue Bonds (the outstanding bonds, if any, to be refunded to be determined by an Authorized Officer (hereinafter defined) and to be herein called the "Bonds to be Refunded"); and

WHEREAS, in the exercise of its constitutional duties, and in order to control and direct prudently expenditures from the University’s funds, the Board determines it is necessary and desirable to authorize the issuance of General Revenue Bonds (the “Bonds”) in order to provide funds which, together with other available funds, will be used to pay all or part of the costs of constructing, furnishing and equipping the Project and refunding the Bonds to be Refunded; and

WHEREAS, a trust indenture (the “Trust Indenture”) must be entered into by and between the Board and a trustee (the “Trustee”) to be designated by an Authorized Officer (hereinafter defined), pursuant to which the Bonds will be issued and secured; and

WHEREAS, the indentures authorizing certain outstanding General Revenue Bonds of the Board (the “Outstanding Bonds”) create certain conditions for the issuance of General Revenue Bonds on a parity basis with the Outstanding Bonds; and

WHEREAS, the Chief Financial Officer and Treasurer shall, on or prior to the delivery of the Bonds, certify that the conditions for issuing the Bonds, secured on a parity basis by General Revenues with the Outstanding Bonds have been met; and

WHEREAS, it is necessary to authorize the Authorized Officers to negotiate the sale of the Bonds with an underwriter or group of underwriters to be selected by an Authorized Officer (collectively, the “Underwriter”) and to enter into a bond purchase agreement or agreements (collectively, the “Bond Purchase Agreement”) with the Underwriter and, if deemed appropriate, a Remarketing Agreement (the “Remarketing Agreement”) or a Broker Dealer Agreement (the “Broker Dealer Agreement”) with the Underwriter, setting forth the terms and conditions upon which the Underwriter will agree to purchase the Bonds and the interest rates thereof and the purchase price therefore and matters related to the remarketing or auction of variable rate bonds or auction rate bonds; and

WHEREAS, in order to be able to market the Bonds at the most opportune time, it is necessary for the Board to authorize the Chief Financial Officer and Treasurer and the Secretary/Vice President for Government Relations (each an “Authorized Officer”) or either of them individually, to negotiate, execute and deliver on behalf of the Board, the Trust
Indenture, the Bond Purchase Agreement, and other related documents, to establish the specific terms of the Bonds and to accept the offer of the Underwriter to purchase the Bonds, and to obtain a policy of bond insurance or a credit or liquidity facility for the Bonds, all may be deemed necessary and desirable by an Authorized Officer and within the limitations set forth herein; and

WHEREAS, the Board has full power under its constitutional authority for supervision of the University, and control and direction of expenditures from the University funds, to acquire, construct, furnish and equip the Project, to refund the Bonds to be Refunded, to finance all or a portion of the costs of the Project and of the refunding by issuance of the Bonds, and to pledge General Revenues (as hereinafter defined) for payment of the Bonds, the credit or liquidity facility, if any.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF CONTROL OF MICHIGAN TECHNOLOGICAL UNIVERSITY, AS FOLLOWS:

1. The Board hereby approves the Project as set forth in Exhibit A attached hereto, and authorizes the Authorized Officers, or either of them, to proceed with the Project and each component thereof. Either Authorized Officer is authorized to determine the specific amount of the cost of the Project to be financed from the proceeds of the Bonds. In addition, the Board authorizes the Authorized Officers, or either of them, to determine which, if any of the outstanding General Revenue Bonds of the Board shall be refunded, based on whether such refunding would produce interest costs savings, more favorable debt service schedules, or more flexible documentation, and to cause to be called for redemption such of the those bonds as are appropriate and consistent with the foregoing objectives.

2. The Board hereby authorizes the issuance, execution and delivery of the Bonds of the Board in one or more series to be designated GENERAL REVENUE BONDS, SERIES 2008 with appropriate additional or alternative series designations, if any, in the aggregate original principal amount to be established by an Authorized Officer, but not to exceed the principal amount necessary to produce proceeds of Six Million One Hundred and Fifty Thousand Dollars ($6,150,000), plus the amount necessary to accomplish the refunding of the Bonds to be Refunded, to be dated as of the date or dates established by an Authorized Officer, for the purpose of providing funds which, together with other available funds, will be used to pay all or a portion of the costs of the Projects, the costs of refunding the Bonds to be Refunded, capitalized interest for such period, if any, as an Authorized Officer may deem appropriate, and costs incidental to the issuance of the Bonds and the refunding, including insurance premiums or fees and expenses associated with credit or liquidity facilities, if appropriate. The Bonds shall be serial Bonds or term Bonds, which may be subject to redemption requirements, or both, as shall be established by an Authorized Officer, but the first maturity shall be not earlier than October 1, 2008 and the last maturity shall be no later than December 31, 2038. The Bonds may bear no interest or may bear interest at stated fixed rates for the respective maturities thereof as shall be established by an Authorized Officer, but the highest yield (computed using the stated coupon and the stated original offering price) for any maturity shall not exceed 6.00% per annum for tax-exempt bonds or 8.00% per annum for taxable bonds, and the Bonds may be issued in whole or in part as capital appreciation bonds, which for their term or any part thereof bear no interest but appreciate in principal amount.
over time at compounded rate (not in excess of 6.00% per annum for tax-exempt bonds or 8.00% per annum for taxable bonds) to be determined by an Authorized Officer. Alternatively, all or part of the Bonds may bear interest at a variable rate of interest for all or a portion of their term, and the variable rate of interest shall not exceed the lesser of 18% per annum, the maximum rate permitted by law or the maximum rate to be specified in the Trust Indenture. In addition, all or part of the Bonds may be issued in related series, one of which bears interest at a variable rate and one of which bears interest at a residual rate determined by subtracting the variable rate from the fixed rate paid by the Board, but the combined rate on such Bonds, taking the two related series together, which shall be determined by an Authorized Officer, shall not exceed 6.00% per annum for tax-exempt bonds or 8.00% per annum for taxable bonds. If the Bonds are issued in whole or in part as variable rate Bonds, all or a portion of the variable rate Bonds may, at any time upon the direction of an Authorized Officer, be converted to variable rate Bonds of another interest rate mode, or to fixed rate Bonds, but the fixed rate thereon shall not exceed 10% for tax-exempt Bonds or 12% for taxable Bonds. The Bonds may be subject to redemption or call for purchase prior to maturity at the times and prices and in the manner as shall be established by an Authorized Officer, but no redemption premium shall exceed 3% of the principal amount being redeemed, unless the premium is established as a “make-whole” amount, in which case the premium may not exceed 12%. Interest on the Bonds shall be payable at the times as shall be specified by an Authorized Officer. The Bonds shall be issued in fully registered form in denominations, shall be payable as to principal and interest in the manner, shall be subject to transfer and exchange, and shall be executed and authenticated, all as shall be determined by an Authorized Officer and provided in the Trust Indenture. The Bonds shall be sold to the Underwriter pursuant to the Bond Purchase Agreement for a price to be established by an Authorized Officer (but the Underwriter’s discount, exclusive of original issue discount, shall not exceed 0.6% of the principal amount thereof) plus accrued interest, if any, from the dated date of the Bonds to the date of delivery thereof.

Any or all of the Bonds may be made subject to tender for purchase at the option of the holder thereof. The obligation of the Board to purchase any such Bonds made subject to tender options may be made payable from available cash reserves of the University, subject to such limitations as may be specified in the Trust Indenture, or may be made payable from a letter of credit, line of credit or other liquidity device (“the Liquidity Device”), all as shall be determined by an Authorized Officer and provided for in the Trust Indenture. Any reimbursement obligation for draws under the Liquidity Device shall be a limited and not general obligation of the Board, payable from and secured by a pledge of General Revenues (hereinafter defined). Either Authorized Officer is authorized to execute and deliver, for and on behalf of the Board, any agreements or instruments necessary to obtain, and provide for repayments under, any Liquidity Device deemed by such officer to be required for the purposes of this Resolution. In the alternative, any or all of the Bonds may be subject to rights on behalf of the holders thereof to tender their Bonds for purchase by the market through an auction procedure, subject to a specified maximum interest rate not in excess of the lesser of the maximum rate specified by law or the rate specified in the Trust Indenture.

3. The Bonds and the obligations of the Board under the Liquidity Device, if entered into, shall be limited and not general obligations of the Board payable from and secured by a first lien on the General Revenues (as shall be defined in the Trust Indenture to include
generally student tuition and other fees, housing and auxiliary revenues, unrestricted gifts and grants, unrestricted investment income and other miscellaneous revenues, subject to certain reductions, limitations and exceptions), and funds from time to time on deposit in certain funds created pursuant to the Trust Indenture, or agreements entered into in connection with any Liquidity Device. The lien on General Revenues created pursuant to this paragraph shall be on a parity basis with the lien thereon securing any of the Outstanding bonds; provided, however, that if determined appropriate by an Authorized Officer, the lien securing the Board's obligations under a Liquidity Facility may be subordinated to the lien securing the Bonds and the Outstanding bonds, or such obligations may be unsecured.

No recourse shall be had for the payment of the principal amount of or interest or premium on the Bonds, any Liquidity Device, or any claim based thereof against the State of Michigan, or any member, officer or agent of the Board or the State, as individuals, either directly or indirectly, nor, except as provided in the Trust Indenture, against the Board, nor shall the Bonds and interest with respect thereto or any Liquidity Device become a lien on or be secured by any property, real, personal or mixed of the State of Michigan or the Board, other than the General Revenues and the moneys from time to time on deposit in certain funds established by the Trust Indenture, agreements entered into in connection with any Liquidity Device.

Any pledge of General Revenues, and funds specified in the Trust Indenture or the Liquidity Device shall be valid and binding from the date of the issuance and delivery of the Bonds or execution and delivery of the Liquidity Device, and all moneys or properties subject thereto which are thereafter received shall immediately be subject to the lien of the pledge without physical delivery or further act. The lien of said pledge shall be valid and binding against all parties (other than the holders of any other bonds, notes or debt obligations secured by a parity first lien on General Revenues) having a claim in tort, contract or otherwise against the Board, irrespective of whether such parties have notice of the lien.

4. The right is reserved to issue additional bonds, notes or other obligations payable from and secured on a parity basis with the Bonds and the Outstanding Bonds from the General Revenues, upon compliance with the terms and conditions as shall be set forth in the Trust Indenture.

5. Either Authorized Officer is hereby authorized and directed, in the name and on behalf of the Board, and as its corporate act and deed, to select the Trustee, and to negotiate, execute and deliver the Trust Indenture. The Trust Indenture may contain such covenants on behalf of the Board and terms as such officers deem appropriate, including, but not limited to, covenants with respect to the establishment of General Revenues at levels expressed as a percentage of debt service on the Bonds or all General Revenue Bonds, and with respect to the issuance of additional bonds, notes or other obligations payable from and secured by General Revenues. In addition, if the Underwriter determines that the present value of the interest cost savings to be produced by bond insurance will be in excess of the cost of bond insurance, either Authorized Officer is hereby authorized, empowered and directed to negotiate for the acquisition of bond insurance and to execute and deliver an insurance commitment or other documents or instruments required in connection with such insurance.
6. Either Authorized Officer is hereby authorized and directed, in the name and on behalf of the Board and as its corporate act and deed, to select the Underwriter and to negotiate, execute and deliver the Bond Purchase Agreement with the Underwriter setting forth the terms of the Bonds and the sale thereof, and Remarketing Agreement or Broker Dealer Agreement, if necessary, all subject to the limitations set forth herein.

7. Either Authorized Officer, or the President of the University, is hereby authorized, empowered and directed, in the name and on behalf of the Board, and as its corporate act and deed, to execute the Bonds by placing his or her facsimile or manual signature thereon, and to deliver the Bonds to the Underwriter in exchange for the purchase price thereof, as provided in the Bond Purchase Agreement.

8. Either Authorized Officer is hereby authorized to cause the preparation of a Preliminary Official Statement, if necessary, and an Official Statement with respect to the Bonds, and to execute and deliver the Official Statement. The Underwriter is authorized to circulate and use, in accordance with applicable law, the Preliminary Official Statement, if any, and the Official Statement in connection with the offering, marketing and sale of the Bonds.

9. The President, the Chief Financial Officer and Treasurer, the Secretary and any other appropriate officer of the Board or the University are hereby authorized to perform all acts and deeds and to execute and deliver for and on behalf of the Board all instruments and documents required by this resolution, the Trust Indenture, or the Bond Purchase Agreement, or necessary, expedient and proper in connection with the issuance, sale and delivery of the Bonds, as contemplated hereby including, if deemed appropriate, an escrow deposit agreement with an escrow agent to be designated by an Authorized Officer. Each Authorized Officer is hereby authorized to designate and empower the escrow agent or the Underwriter to subscribe for United States Treasury Obligations, State and Local Government Series, on behalf of the Issuer, as may be necessary in connection with any refunding authorized hereby. Any reference to an officer of the Board or the University herein shall include any interim or acting officer appointed by the Board. Any action required under the Trust Indenture, Bond Purchase Agreement, or other instrument related to the Bonds or the operation and administration of the financing program evidenced by the Bonds, may be taken by and on behalf of the Board by an Authorized Officer.

10. In accordance with the requirements of Rule 15c2-12 of the United States Securities and Exchange Commission, the Board may be required in connection with the issuance of the Bonds to enter into a Disclosure Undertaking for the benefit of the holders and beneficial owners of the Bonds. Either Authorized Officer is authorized to cause to be prepared and to execute and deliver, on behalf of the Board, the Undertaking.

11. Either Authorized Officer, or the President of the University, is hereby authorized to designate all or any portion of the Bonds as "qualified tax-exempt obligations" for purposes of deduction of interest expense by financial institutions to the extent that such designation is lawfully available pursuant to the Internal Revenue Code of 1986, as amended.
12. Either Authorized Officer, or the President of the University, is hereby authorized to issue declarations of intent to reimburse the University from the proceeds of the Bonds or future bond issues for any expenditures with respect to the Project or future projects incurred prior to the issuance of the Bonds or future bonds, all in accordance with I.R.S. Regulation 1.103-18.

13. All resolutions or parts of resolutions or other proceedings of the Board in conflict herewith be and the same are hereby repealed insofar as such conflict exists.

I hereby certify that the attached is a true and complete copy of a resolution adopted by the Board of Control of Michigan Technological University at a regular meeting held on February 28, 2008, and that said meeting was conducted and public notice of said meeting was given pursuant to and in full compliance with applicable law, and that the minutes of said meeting were kept and will be or have been made available as required by applicable law.

I further certify as follows:

1. Present at the meeting were the following Board members:

________________________________________________________________________

________________________________________________________________________

2. Absent from the meeting were the following Board members:

________________________________________________________________________

3. The following members of the Board voted for the adoption of the Resolution:

________________________________________________________________________

________________________________________________________________________

4. The following members of the Board voted against adoption of the Resolution:

________________________________________________________________________

RESOLUTION DECLARED ADOPTED.

____________________________________
Secretary to the Board of Control
of Michigan Technological University
EXHIBIT A

PROJECT

The Project consists of the following capital improvement items, at a currently estimated cost of $6,150,000:*

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPPCO Building Purchase and Renovation</td>
<td>$3,400,000</td>
</tr>
<tr>
<td>MUB Renovations</td>
<td>1,750,000</td>
</tr>
<tr>
<td>Keweenaw Research Center Building</td>
<td>1,000,000</td>
</tr>
</tbody>
</table>

*Exclusive of capitalized interest, bond insurance premium and other bond issuance expenses.

V-B-5. Approval for Stadium Renovation (Synthetic Turf)

The first part of Phase I Stadium Renovation project provides for installation of synthetic turf on Sherman Field along with required substructure and drainage. The project will be funded entirely by contributions from football alumni and friends. We are 1 of 3 of 14 members of our conference who do not have synthetic turf. The primary goal of synthetic turf is to give the Michigan Tech Football Huskies adequate field conditions for practice and games, while creating a multiple use facility to accommodate hundreds of Michigan Tech students, many of which are female and international, and community soccer clubs. Besides the much-needed improvement to the field surface, another feature is the extension of field dimensions to accommodate regulation soccer. The installation of the synthetic turf will offer the University the opportunity to add intercollegiate women’s soccer which moves the University towards reaching a more diverse campus. Since the new surface is designed for continuous use with very little maintenance, the multiple use capability greatly enhances recreational opportunities for all users.

Ms. Ashford asked if the University could absorb the cost if the funding does not materialize. Mr. Greenlee stated that we can absorb the cost as we are in a very good cash position and we are using some of our cash for this project and about $1,000,000 with the purchase and renovations of the UPPCO building. She also asked if there was any realized savings in switching from grass to synthetic turf. Mr. Brule noted that Ms. Horsch presented to the Finance and Audit Committee an analysis and there is some small savings. President Mroz pointed out that the remaining donors are people who have donated to Michigan Tech in the past and in sizable amounts and have completed their pledges ahead of schedule so we are confident that we will collect on the outstanding pledges.
It was moved by D. Brule, supported by S. Hicks, and passed by voice vote without dissent, that the Board of Control approves the installation of synthetic turf on Sherman Field at a cost not to exceed $800,000.

V-B-6. Gifts

It was moved by D. Brule, supported by M. Richardson, and passed by voice vote without dissent, that the Board of Control acknowledges the gifts to Michigan Technological University.

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Michigan Technological University
Michigan Tech Fund
Fundraising Productivity Report
July 1, 2007 through January 31, 2008
Compared to Prior Year

<table>
<thead>
<tr>
<th>Source</th>
<th>Goal</th>
<th>FY08 YTD Total</th>
<th>% YTD</th>
<th>FY07 YTD Total</th>
<th>FY07 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals - Major Gifts (25K and up)</td>
<td>27,350,000</td>
<td>2,959,709</td>
<td>11%</td>
<td>2,350,148</td>
<td>4,406,556</td>
</tr>
<tr>
<td>Realized Planned Gifts (Unanticipated - 25K and up)</td>
<td>59,837</td>
<td>2,959,709</td>
<td>11%</td>
<td>145,744</td>
<td>145,744</td>
</tr>
<tr>
<td>Individuals - non-Major Gifts</td>
<td>1,500,000</td>
<td>891,422</td>
<td>59%</td>
<td>1,358,384</td>
<td>1,358,384</td>
</tr>
<tr>
<td>Full Value New Planned Gift Commitments</td>
<td>9,250,000</td>
<td>6,462,399</td>
<td>70%</td>
<td>15,522,393</td>
<td>15,522,393</td>
</tr>
<tr>
<td>Annual Fund</td>
<td>1,500,000</td>
<td>1,085,646</td>
<td>69%</td>
<td>1,522,293</td>
<td></td>
</tr>
<tr>
<td>Corporations</td>
<td>2,500,000</td>
<td>1,403,644</td>
<td>56%</td>
<td>1,300,039</td>
<td>2,018,081</td>
</tr>
<tr>
<td>Foundations &amp; Other Organizations</td>
<td>1,300,000</td>
<td>217,225</td>
<td>17%</td>
<td>443,008</td>
<td></td>
</tr>
<tr>
<td>Gifts-in-Kind</td>
<td>1,520,000</td>
<td>102,770</td>
<td>7%</td>
<td>1,983,603</td>
<td>2,497,524</td>
</tr>
<tr>
<td>Grand Total</td>
<td>45,000,000</td>
<td>13,182,658</td>
<td>29%</td>
<td>22,779,872</td>
<td>27,913,964</td>
</tr>
</tbody>
</table>

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- Except for the Annual Fund, all totals include outright gifts and the full amount of new pledge commitments
- Annual Fund includes cash from prior year pledges in addition to outright current year gifts and new pledge commitments due current year
- An individual's gifts given through another source (i.e. family foundation or closely held business) are credited to the individual
V-C-1. Resignations, Retirements, and Off-Payroll

It was moved by D. Brule, supported by M. Richardson, and passed by voice vote without dissent, that the Board of Control accepts the resignations and confirms the off payroll determinations.

BOARD OF CONTROL OFF-PAYROLL REPORT
(November 18, 2007 – January 26, 2008)

| Faculty |
|------------------|------------------|------------------|------------------|------------------|
| **RETIREMENT**   | **Department**   | **Title**        | **Hire Date**    | **Term Date**    |
| Lee, Jong        | Materials Sci & Engg | Professor       | 06/25/73         | 12/31/07         |

| Fixed-Term Faculty |
|-------------------|------------------|------------------|------------------|------------------|
| **OFF PAYROLL**   | **Department**   | **Title**        | **Hire Date**    | **Term Date**    |
| Wang Hao          | Mathematical Sciences | Instructor     | 08/12/07         | 12/29/07         |
| **RESIGNATION**   | **Department**   | **Title**        | **Hire Date**    | **Term Date**    |
| Liu, Wen          | School of Technology | Instructor     | 08/21/06         | 12/22/07         |

| Employees |
|------------------|------------------|------------------|------------------|------------------|
| **NON-EXEMPT-PT**| **Department**   | **Title**        | **Hire Date**    | **Term Date**    |
| St Amour, David  | Memorial Union   | Custodian        | 08/11/06         | 01/06/08         |
EXEMPT  Department  Title  Hire Date  Term Date
Backman, Ramona  Rozza Ctr for Perf Arts  Asst Director Rozza Ctr  05/29/87  12/31/07
Kangas, Steven  LTAP  Software Engineer II  12/08/96  12/01/07
Kentala, Nathan  Campus Dining Services  Dining Svs Supvr Wads Hall  10/05/99  12/04/07
Maclnnes, Joanne  Advancement  Director Foundation Dev  07/31/06  11/30/07
Strzyzykowski, Dan  Residence Hall Facilities  Housing Fac Manager, Security  01/13/83  11/18/07
Velat, John  LTAP  Staff Asst/Technical Writer  04/09/01  01/02/08

V-C-2. Honorary Degree

The Administration is recommending that Senator Carl Levin be awarded an Honorary Doctorate in Sustainable Science and Engineering.

Carl Levin is a Democratic United States Senator from Michigan and is the Chairman of the Senate Committee on Armed Services. He has been in the Senate since 1979 and Michigan’s senior senator since 1995. He is the longest-serving U.S. Senator ever to represent Michigan.

Carl Levin was born in Detroit. He attended Detroit public schools and graduated from Swarthmore College in 1956 and from Harvard Law School in 1959. Soon after earning his law degree, he was admitted to the Michigan bar and opened a practice in Detroit, where he still lives. He was state assistant attorney general and general counsel for the Michigan civil rights commission from 1964-67. He was special assistant attorney general for the State of Michigan and chief appellate defender for the city of Detroit from 1968-69. He was a member of the Detroit City Council 1969-77, the last four years as council president.

It was moved by R. Kershner, supported by D. Brule, and passed by voice vote without dissent, that the Board of Control approves the awarding of an Honorary Doctorate in Sustainable Science and Engineering to Senator Carl Levin.

VI. REPORTS

A. Research and Sponsored Programs Report – Dr. David Reed, Vice President for Research
   (A copy of Dr. Reed’s report was included in the agenda book.)

B. Recent Media Coverage – Mr. Shea McGrew, Vice President for Advancement
   (A copy of Mr. McGrew’s report was included in the agenda book.)

C. University Senate Report – Dr. Martha Sloan, President
   (A copy of Dr. Sloan’s report was included in the agenda book.)

D. Undergraduate Student Government Report – Mr. Robert Niffenegger, President
   (A copy of Mr. Niffenegger’s report was included in the agenda book.)

E. Graduate Student Council – Ms. Emily McCarthy, President
   (A copy of Ms. McCarthy’s report was included in the agenda book.)
VII. INFORMATIONAL ITEMS

A. Analysis of Investments  
B. Auxiliary Enterprises Operations  
C. Contracts and Grants  
D. Enrollment Report  
E. Advancement Report  
F. “In The News”

VIII. OTHER BUSINESS

There was no other business at this time.

IX. PUBLIC COMMENTS

There were no public comments at this time.

X. ADJOURNMENT

It was moved by R. Kershner, supported by R. Gronevelt, and passed by voice vote without dissent, that the meeting be adjourned.

__________________________________________
Secretary of the Board of Control

__________________________________________
Chair, Board of Control