

TECHNICAL COMMITTEE BYLAWS

As of 4/8/21

TMS has many technical committees that report to five division councils. In February 2020, the Technical Division Council approved the creation of one templated technical committee bylaws document for all TMS technical committees to follow.

Unique operating procedures requested by individual committees can be added to this template document as an addendum with approval from their respective division council(s).

A list of the current technical committees, their missions, and respective division council(s) that are to follow these bylaws is included as Attachment 1.

ARTICLE I Names, Missions, and Objectives

Section 1

The names of TMS's technical committees, their missions, and respective division council(s) are included in Attachment 1. The Committee shall function under the jurisdiction of the assigned division council(s) and the TMS Board of Directors.

Section 2

The objective of TMS's technical committees shall include the following:

- a) The organization of symposia, technical sessions, and professional development courses/events for the dissemination of information in all areas defined by the scope of the respective committee at conferences and meetings held by the Society.
- b) The publication of papers, reports, books, web-based media and other technical materials pertinent to the respective committee's area of interest.
- c) The participation in and endorsement of TMS conferences and meetings held by the Society, particularly in the planning and operation of such sessions in the subject matter related to the respective committee's field of interest.

ARTICLE II Limitations and Dissolution

Section 1

The bylaws and activities of TMS's technical committees shall conform to the Bylaws and regulations of TMS and to the requirements of the Bylaws of the committee's respective division council(s).

Section 2

Activities from the TMS's technical committees shall not provide any financial gain to the benefit of any private individual or company.

Section 3

Advocacy conducted on behalf of TMS is coordinated by the Public and Governmental Affairs Committee. The technical committees of TMS do not engage in any political or legislative advocacy activities and defers any requests to do so to the Public and Governmental Affairs Committee.

Section 4

If a technical committee is not active or does not follow TMS's bylaws and regulations, the requirements of their committee, or their respective division council, then the committee may be subject to being dissolved. This decision would be the responsibility of the respective division council and possibly the TMS Board of Directors.

ARTICLE III Membership

Section 1

Membership on technical committees is open to individuals who are professional or student members of TMS and who are actively engaged in professional pursuits that lie within the scope of the technical committee. If at any time a committee member allows their membership with TMS to lapse, they will be subject to removal from the roster. Committee members must maintain their TMS membership to be on a TMS committee.

Committee members must also actively participate and/or attend committee meetings. If a member does not attend or participate regularly in committee activities and meetings, they are subject to removal from the roster. In order to ensure active participation of committee affairs, attendance of meetings shall be recorded by the vice chair. If a member is unable to attend, they should notify the TMS staff liaison or committee chair.

Section 2

The committee chairperson is responsible for appointing committee membership to individuals who fulfill the eligibility requirement as stated above. The committee chair is also responsible for providing a committee roster of names to the TMS staff liaison on a regular basis. Once the chair has appointed a person to committee membership, they will have full voting rights.

Section 3

The term of membership on a technical committee may be indefinite if the member actively participates, follows TMS rules and regulations, and maintains their TMS membership. Failure by any committee member to participate in meetings or follow TMS policies and procedures may be cause for removal from the committee and/or TMS membership.

ARTICLE IV Composition

Section 1

Technical committees shall be led by a chair and vice chair. The chair will be elected for a two-year term and vice chair for a two-year term. The beginning and expiration of all terms of office will coincide with the commencement of the TMS Annual Meeting.

Section 2

The chair is responsible for conducting committee meetings, preparing agendas and meeting notices, and appointing individuals to membership on the committee. Additionally, the chair serves as a voting member of their respective division council(s) (refer to Attachment 1) during their term. He/she may, at any time, appoint subcommittees and/or ad hoc committees for special projects, planning or other purposes.

Section 3

The vice chair is responsible for acting for the chair on any occasion where the chair is unable to carry on their normal duties and shall assume the position of chair should the position become permanently vacant in mid-term. He/she shall assist the chair in all ways appropriate, performing such duties as are assigned to them by the chair.

The vice chair is also responsible for recording minutes and attendance of committee meetings and shall ensure the maintenance and preservation of records of committee activities by providing them to the TMS staff liaison on a regular basis. The vice chair may attend Division Council meetings but is not a voting member.

Section 4

The committee may choose to have the optional position of Secretary to assist with administrative tasks such as assuring that agendas, meeting notices and minutes and the Technical Committee Report are completed and provided to the committee staff liaison as required. This position may also be asked to keep the committee roster up to date and document member participation. The Secretary is appointed by the Chair and their term of service would be two years, the same as the chair and vice chair. The Secretary is a voting member of the committee.

Section 5

A *JOM* Advisor is appointed by a TMS technical committee to oversee the committee's publication in *JOM*. Responsibilities focus on the development of a special topic themed around the committee's interests, including inviting, overseeing the peer review of, and making decisions on manuscripts. Most committees publish one topic each year. Committees can appoint more than one advisor, ideally with staggered terms, to ensure smooth transitions for the incoming advisor. A typical advisor term is two years. The *JOM* Advisor is a voting member of the committee.

Section 6

TMS shall appoint a staff liaison to the technical committee. This staff person will be a non-voting member.

ARTICLE V Elections

Section 1

To maintain continuity, the vice chair shall normally be the next chair of the technical committee. However, the chair-elect must be duly elected by the TMS committee members traditionally prior to the TMS Annual Meeting by e-mail ballot or at the committee meeting held in conjunction or near the TMS Annual Meeting. The next vice chair will then need to be approved by the respective division council(s). The chair is responsible for submitting the request to their respective division council(s) for approval before the vice chair's election is official.

Section 2

Approximately six months prior to the expiration of their term, the chair shall solicit nominations for the vice chair position from the committee members. Nominations will be communicated to the committee members for a vote in person or by e-mail ballot. Committee members in good standing that are not able to attend the meeting (if the vote is held at an in-person meeting) may vote by e-mail prior to the meeting. A simple majority of the votes cast will suffice for election.

ARTICLE VI Meetings

Section 1

Technical committees may hold meetings during the TMS Annual Meeting, the MS&T Conference, and by video and teleconference throughout the year as deemed necessary by the chair. Quorum at any meeting or online vote shall consist of 50%+1 of the committee members on the committee roster.

ARTICLE VII Honors and Professional Recognition

Section 1

With oversight from their respective division council(s), technical committees may be responsible for the selection of recipients for TMS awards. If a technical committee wishes to create, revise, or discontinue a TMS award, it must receive approval from their respective division council(s). All TMS awards must also follow TMS's awards program application and approval processes and be coordinated with the TMS awards program staff.

Section 2

TMS technical committees can submit proposals to sponsor an Honorary Symposium for the TMS Annual Meeting and/or MS&T. Committees must follow the Honorary Symposium Policy and process which is available on the TMS website or by contacting TMS staff.

ARTICLE VIII Budget

Section 1

TMS technical committees do not maintain budgets for their activities. If funding is desired for a committee activity, the committee chair can request funding assistance from their respective division council(s) as they develop their annual budget. Revenue received from specialty conferences, short course programming, and publications that technical committee's support are held at the Society level. The division councils' budgets are developed by the division council chairs and then approved by the TMS Financial Planning Committee and Board of Directors annually.

ARTICLE IX Amendments, Addendums, & Implementation

Section 1

These bylaws may be amended, by modification or addition, to ensure effective operation by the Technical Division Council. Such amendments require a majority vote of the Technical Division Council for approval and will be reviewed on a regular basis. Approved changes will become effective immediately.

Section 2

If a technical committee chair would like to have a unique operating procedure be considered for their committee, the chair must submit an Addendum Request to their respective division council(s). The Technical Division Council will then review the request and determined if the operating procedure can be implemented.

ATTACHMENT 1

TMS Technical Divisions and Committees Structure

As of 4/8/21

Technical Division Council & Committees	Technical Committee Mission Statements
Extraction & Processing Division Council (EPD)	
Additive Manufacturing*	Additive Manufacturing (AM) encompasses techniques where component fabrication is performed through the addition of material via a digital transfer of shape and process information. This committee seeks to promote the understanding of interrelationships between feedstock, processing (parameters), information processing, digital control, microstructure, shape, mechanical behavior/materials properties, and function/performance, inclusive of hybrid systems
Energy (joint with LMD)	Industry is actively engaged in efforts to reduce energy consumption and environmental impact for the production and manufacture of minerals, metals, and materials and their products. It is the mission of the TMS Energy Committee to promote the sustainable production and manufacture of minerals, metals, and materials by fostering technical solutions to increase process efficiency, decrease energy consumption, minimize process emissions, and apply alternate sources of energy into material production processes.
Hydrometallurgy & Electrometallurgy	Covers aqueous processing of metals including primary extraction, value-added processing, and environmental issues. Prior to the 2008 TMS Annual Meeting, this committee was known as the Aqueous Processing Committee.
Materials Characterization	Focuses on the materials characterization aspect of process research and development in the fields of minerals, metals and materials. The scope includes the evaluation of products, guiding process designs and trouble-shooting processes. Emphases are placed on the study of micro-textures and the compositions of the products to elucidate the chemical reactions occurring during the processes, to determine the physical, chemical, mechanical, and thermal properties and the stability of the products.
Process Technology & Modeling (joint with MPMD)	Process technology encompasses the fundamental principles for material production as well as the design of controls to ensure proper production. Inherent in the understanding of materials production is the analysis and modeling of material synthesis and processing. In the context of the above, the scope of the committee cuts across many sub-disciplines of materials research, including: phase and chemical equilibria, thermodynamics and kinetics of process reactions, physical and mathematical modeling, process control, sensors and diagnostics, advanced process instrumentation, and design and control of manufacturing processes.

Pyrometallurgy	Focuses on the science, technology, and industrial practices of extraction of non-ferrous metals from their ores, their subsequent refining by pyrometallurgical means, and their casting into semi-finished products
Recycling & Environmental Technologies (joint with LMD)	Recycling and environmental technologies encompasses the reclamation and reuse of products as well as extraction and processing as applied to the treatment and minimization of wastes. The primary objective of the committee is to promote the interaction of the different technical functions (research, development, production, and economics) in order to broaden and disseminate understanding, knowledge, and know-how within the metals and materials industry regarding recycling, environmental impact of processes, and the treatment of process waste.
Functional Materials Division Council (FMD)	
Alloy Phases (joint with SMD)	Covers metallic phases in relation to crystal structure, atomic parameters, and electronic structure.
Biomaterials (joint with SMD)	Covers subjects including metallic, ceramic, and polymeric biomaterials and associated issues on synthesis and testing of macro/micro/nano structured implant materials, bio-active materials, biocompatibility, and degradation.
Chemistry & Physics of Materials (joint with SMD)	Focused on fundamental issues related to the chemistry and physics of materials. Open to all classes of materials and modes of investigation, including theory, simulation, and experiment.
Electronic Packaging & Interconnection Materials	Structure-property-processing relationships of electronic packaging and interconnect materials, structures and technologies.
Energy Conversion & Storage	Promotion and dissemination of advanced materials and scientific/technological advancement in energy conversion and storage that may cover all types of fuel cells, hydrogen storage, solar/wind power, batteries, etc.
Magnetic Materials	Advance the science and applications of superconducting and magnetic materials.
Nanomaterials	Focuses on the relationship between structure, property, and performance on a microscopic level in functional materials.
Thin Films & Interfaces	Promotes knowledge of the science and engineering of thin films and interfaces.

Light Metals Division Council (LMD)	
Aluminum	Activities related to research, development, production, and economic analysis of the aluminum industry, the science and engineering of aluminum production, processing and products, and the technology of materials, processing and structures including bauxite, alumina; anodes and cathodes; the smelting and casting of aluminum; the development of aluminum alloys, and the fabrication of products from aluminum and its alloys.
Energy (joint with EPD)	Industry is actively engaged in efforts to reduce energy consumption and environmental impact for the production and manufacture of minerals, metals, and materials and their products. It is the mission of the TMS Energy Committee to promote the sustainable production and manufacture of minerals, metals, and materials by fostering technical solutions to increase process efficiency, decrease energy consumption, minimize process emissions, and apply alternate sources of energy into material production processes.
Magnesium	Provides a forum for the exchange of science and technology issues associated with magnesium production and use.
Recycling & Environmental Technologies (joint with EPD)	Recycling and environmental technologies encompasses the reclamation and reuse of products as well as extraction and processing as applied to the treatment and minimization of wastes. The primary objective of the committee is to promote the interaction of the different technical functions (research, development, production, and economics) in order to broaden and disseminate understanding, knowledge, and know-how within the metals and materials industry regarding recycling, environmental impact of processes, and the treatment of process waste.
Materials Processing & Manufacturing Division Council (MPMD)	
Computational Materials & Science Engineering	Foster research and development associated with the mathematical and computational determination of the physical and engineering properties of materials, the depiction of material microstructure and its evolution associated with those properties.
Integrated Computational Materials Engineering (ICME)	Promote the emerging area of integrated computational materials engineering.
Nanomechanical Materials	Focuses on the nanomechanical behavior of metals as it relates to the manufacture of microelectronic devices.

Phase Transformations	Activities are oriented toward the fundamental aspects of phase transformations. Emphasis is placed on the thermodynamic driving force for phase transformations, the kinetics of nucleation and growth, interfacial structure and interfacial energies, transformation crystallography, surface reliefs, and, above all, the atomic mechanisms of phase transformations.
Powder Materials	The theory and practice of all aspects of particulate materials synthesis, processing, and characterization.
Process Technology & Modeling (joint with EPD)	Process technology encompasses the fundamental principles for material production as well as the design of controls to ensure proper production. Inherent in the understanding of materials production is the analysis and modeling of material synthesis and processing. In the context of the above, the scope of the committee cuts across many sub-disciplines of materials research, including: phase and chemical equilibria, thermodynamics and kinetics of process reactions, physical and mathematical modeling, process control, sensors and diagnostics, advanced process instrumentation, and design and control of manufacturing processes.
Shaping & Forming	Addresses processes and materials properties that relate to the shaping, forming, and working of sheet and bulk materials.
Solidification	Encourage the generation and dissemination of knowledge in the field of solidification science and be proactive in seeking to further its application.
Surface Engineering	Promotes the field of surface modification and coatings.
Structural Materials Division Council (SMD)	
Advanced Characterization, Testing & Simulation	The science and engineering of advanced methods for characterization, testing, and simulation of structural materials. Topics addressed include novel characterization and mathematical representation of microstructures, advancements in characterization and modeling of mechanical properties, and development of computational tools for predicting the behavior of structural materials.
Alloy Phases (joint with FMD)	Covers metallic phases in relation to crystal structure, atomic parameters, and electronic structure.
Biomaterials (joint with FMD)	Covers subjects including metallic, ceramic, and polymeric biomaterials and associated issues on synthesis and testing of macro/micro/nano structured implant materials, bio-active materials, biocompatibility, and degradation.

Chemistry & Physics of Materials (joint with FMD)	Focused on fundamental issues related to the chemistry and physics of materials. Open to all classes of materials and modes of investigation, including theory, simulation, and experiment.
Composite Materials	The committee encompasses composite materials with metallic, organic, or ceramic matrices.
Corrosion & Environmental Effects	To promote science and engineering of corrosion and environmental effects on materials, including metals, intermetallics, ceramics, and polymers in gaseous, liquid, and solid environments.
High Temperature Alloys	To provide a means of communication among those interested in superalloys and other high temperature alloys. Emphasis on communicating new technical information and critical reviews on the technology of high temperature alloys.
Mechanical Behavior of Materials	Covers relationships between microstructure and mechanical properties.
Nuclear Materials	Includes the scientific and technical aspects of materials which are utilized in all areas of nuclear energy technology and related areas of materials science and engineering.
Refractory Metals & Materials	Includes all technical aspects of the science of refractory metals and materials which are defined as those having melting points in excess of 1850K, with the exception of titanium. Concerned with many aspects of the technology of refractory metals, structural ceramics and intermetallics, including, but not limited to, the physical metallurgy, processing, fabrication, properties and applications of those metals, alloys and composites thereof.
Steels	The scope of the committee encompasses the physical metallurgy of steels, including alloy development; mechanical and thermal processing; phases, microstructure and properties and all fundamental underpinnings that support the advancement of steel applications.
Titanium	Focuses on titanium's refining, processing, development, heat treatment, physical and mechanical properties, and environmental behavior.

*Bridge committee between all five Division Councils. Joint committees are noted with parenthesis.