

## Link Lab Bylaws

### Mission

To advance Cyber-Physical Systems research and education needed to solve society's most challenging problems

### Vision

To be the preeminent Cyber-Physical Systems academic laboratory in the world

### Values

- Creating world class research results
- Increasing UVA Engineering's recognition nationally and worldwide
- Improving the success of our faculty, staff, and student members
- Enhancing diversity in CPS research, education, and workforce
- Impacting industry, communities, policy, and the trained workforce

### Members

#### Link Lab Faculty Member

- Commits to actively participate within the Link Lab and to take part in the financial model and costs established for running the lab. Examples of active participation within the lab include:
  - Writing joint publications with other Link Lab members,
  - Co-advising students with other Link Lab members,
  - Co-authoring grant proposals with other Link Lab members,
  - Participating in Link Lab committees, meetings, events, retreats, lunches, demo days, etc., and
  - Committing to sharing equipment (if involved in the use of the hardware space).
- Benefits from using the Link Lab space, from being listed on the lab webpage and being able to use the Link Lab affiliation, and from Link Lab resources including equipment, staff, industry connections, funding if available, etc.
- Joins the lab by first contacting the Director or Associate Director, next submitting required application materials (e.g., CV), and then a simple majority vote of all Link Lab faculty.
- Faculty members inactive in the lab or no longer willing to take part in the financial model and costs established for running the lab can have their membership revoked. Faculty not meeting these membership requirements will first be notified by the Director or Associate Director. A year after this notification, if a majority of the faculty members on the Leadership Council still believe the faculty member is not fulfilling their membership responsibilities, a membership termination vote will be called. The decision to revoke a faculty's membership within the Link Lab rests with all Link Lab faculty members and will be determined by a simple majority vote of all Link Lab faculty members.

- Members may voluntarily withdraw from membership at any time by communicating the decision to the Director or Associate Director.
- Policies for faculty having their primary office within the Link Lab will be determined by the Leadership Council. The council shall consider the following ordered list of priorities for determining seating within the lab: (1) minimizing unwanted moves for junior faculty members, (2) having a diverse representation across academic disciplines and research agendas within the lab, (3) giving preference to faculty with the most activity in the lab, and (4) having a reasonable rate of turnover to bring new perspectives and ideas within the lab.

#### Link Lab Student and Research Staff Members

- Includes graduate and undergraduate students, postdocs, research scientists, and related research staff members advised by a Link Lab faculty member.
- Are expected to be active participants in the Link Lab community.
- Policies for seating in the lab will be determined by the Leadership Council. The council shall prioritize seating first for research scientists/engineers, then postdocs, then PhD students, then MS students, then ME students, and finally BS students.
- The Leadership Council will work with Link Lab faculty to identify students and staff that would most benefit from having their primary desk within the lab with the goal of promoting cross-disciplinary research and broad participation across Link Lab members.

### **Governance**

#### Director

- Appointed by Link Lab faculty members by simple majority vote using a two-round (run-off) system, if necessary.
- Must be a Link Lab faculty member at the rank of Associate or Full Professor.
- Serves a 3-year term. Can serve for two consecutive terms, but must then wait at least one term before serving again.
- Charged with being the president and chief-executive-officer of the lab.

#### Associate Director

- Nominated by the Director, appointed by the Leadership Council by a majority vote
- Serves a 2-year term. Can serve for three consecutive terms, but must then wait at least one term before serving again.
- Must be a Link Lab faculty member not in the same department as the Director
- Charged with being the second in command, acting as the director when the director is unable to do so. Leads one or more of the research thrusts or other strategic priorities within the lab.

## Leadership Council

- Consists of:
  - The Director
  - The Associate Director
  - The President of the Link Lab Student Committee
  - Five at-large Link Lab Faculty Members. Elections for these positions will be held as follows.
    - The Director requests nominations from Link Lab faculty members for the open seat(s) on the Leadership Council. Self-nominations are permitted.
    - Nominated faculty are included on the ballot if the following conditions are met:
      - The nominated faculty member agrees to be listed on the ballot and
      - The nominated faculty member, if elected, would not create a conflict with the council member restrictions listed below.
    - Nominated faculty are listed on the ballot along with their research focus, disciplinary background, and faculty rank.
    - All Link Lab faculty members may vote for up to five (or the number of open seats on the Leadership Council, if less than five) of the faculty appearing on the ballot. Faculty are informed on the ballot about the member restrictions placed on the Leadership Council (see below) to guide their voting process.
    - Open positions will be filled by faculty receiving the most votes while also satisfying the following restrictions:
      - At least one faculty member (including the Director and Associate Director) must be able to represent each of the research themes within the Link Lab,
      - At least two of faculty members on the Leadership Council must be faculty members at the assistant professor rank, and
      - No more than three faculty members on the Leadership Council (including the Director and Associate Director) can have a primary appointment in the same department.
    - At-large faculty members of the Leadership Council will serve a 2-year term. Faculty can serve as an at-large member of the Leadership Council for three consecutive terms, but must then wait at least one year before serving as an at-large member again.
- Organizes and manages the lab activities and policies, sets priorities for the lab with the goal of providing a forward-looking vision for the lab (with input from all advisors and stakeholders), and creates and maintains partnership models to account for the myriad interactions and diverse groups interested in CPS.
- Must put important items having a significant impact on the lab or lab members to a vote of all Link Lab faculty members. Such important items must include (but are not limited to) the following:
  - Accepting new Link Lab faculty members (simple majority vote),

- Revoking membership of Link Lab faculty members (simple majority vote),
- Changing the research themes for the Lab (2/3 majority vote), and
- Changing the Link Lab Bylaws (2/3 majority vote).

#### Link Lab Student Committee

- Consists of a group of Link Lab Student and Research Staff Members (i.e., graduate and undergraduate students, postdocs, and research scientists advised by a Link Lab faculty member).
- Has a graduate student president and other officers elected by the Link Lab Student and Research Staff Members.
- Has a faculty advisor elected by the Link Lab Student and Research Staff Members.
- Charged with elevating the Link Lab experience for all student and research staff members by encouraging comradery among our diverse group and acting as the liaison between students, staff, and faculty.

#### Executive Team

- Consists of the Director and Associate Director.
- Can include a flexible and varying cabinet of positions with 1-year appointments (no term limits), created and appointed by the Director, e.g., “Director of Communication” or “Director of Masters in CPS program.” These positions can be filled by faculty or staff members.
- The Executive Team is ultimately responsible for leading the lab members in executing strategies set by the Leadership Council.

#### UVA Advisory Board

- Includes department chairs for all participating departments within the lab and least one representative from the SEAS Dean’s Office.
- Could include additional key UVA partners and stakeholders as determined by the Leadership Council.
- Provides non-binding advice to the Leadership Council on strategies and goals for coordination within SEAS and UVA to align research and education priorities between departments, the school, the university, and the Link Lab.
- Members of the Leadership Council (including at least the Director or Associate Director) must meet with the UVA Advisory Board at least once a year to facilitate dialog and transparency between these entities and the Link Lab.

#### Industrial Advisory Board

- Includes up to two representatives from all industrial affiliates.
- Provides non-binding advice to the Leadership Council on strategies and goals for industrial engagement in research and CPS education.

#### **Operations**

- The Leadership Council sets strategic planning goals, i.e. defining the Link Lab goals with respect to research, education, business, and impact. The Leadership Council is advised by

the UVA Advisory Board and Industrial Advisory Board and will take input from these stakeholders into consideration when setting goals and strategies.

- Examples of goals that might be established by the Leadership Council:
  - Support 3 research scientists in strategic research areas,
  - Support 3 staff members to achieve certain strategic goals,
  - Secure sustained industry sponsorship of \$1M from industry partners,
  - Secure center-level funding in a given strategic research area,
  - Support 1 project seed grant per year to start new projects,
  - Support 1 grad fellowship per year for recruiting purposes, or
  - Improve external communication and marketing/branding.
- Examples of strategies that may be proposed by the Leadership Council to reach goals:
  - Raise money through a master's degree program in CPS,
  - Create a professional training program or conferences in CPS technologies, e.g. rapid prototyping of low-power devices,
  - Invite industry reps to 2-day annual retreats,
  - Fund a "visitor experience" to demo for industry and foundation visitors,
  - Fund a pilot study to provide preliminary data for a large proposal,
  - Introduce graduate summer school programs (e.g., on topics like Autonomous Vehicles or Predictive Modeling for Smart Cities), or
  - Develop online CPS courses and tutorials and, eventually, online certification/degree.
- The Executive Team is responsible for leading the Lab members in execution of the strategies set by the Leadership Council while also managing day-to-day operations.
- In the interest of transparency and engagement, the Executive Team will call "All Hands" Link Lab faculty meetings approximately once per semester that cover topics such as:
  - Summary of the Link Lab goals and strategies,
  - Updates on progress toward these goals, including recent objectives (measurable steps) achieved, and a list of future objectives and the tactics to achieve them, and
  - Lab budget summary: income, expenses, deficit/surplus, and annual changes.
- Changes to these bylaws can be made at any time with a two-thirds vote from all Link Lab faculty members. Proposed changes must first gain the support of two Link Lab faculty (i.e., be seconded by a faculty member) and then brought to the Leadership Council, who will then bring the proposed change to the faculty for a vote.

## History

9/17/2018: Approved through a vote of the Link Lab faculty members.

8/6/2024: Updated through a two-thirds vote of Link Lab faculty members.