The goal is to conduct the PhD thesis defense in the same manner as when the PhD candidate, the thesis committee and the audience are all participating in-person. Therefore, there will be four parts of the thesis defense:

1. Public oral presentation by PhD candidate to committee and audience followed by Q&A
2. Discussion between PhD candidate and thesis committee (no audience)
3. Discussion amongst thesis committee (no PhD candidate and no audience)
4. Decision of thesis committee declared to PhD candidate and audience

Using the app Zoom, we will implement the use of a breakout room: Breakout Room 1 (will be re-named “thesis committee”) for discussions between candidate and thesis committee.

Schedule the Zoom PhD Defense (this will be completed by the “host”)

1. The “host” should be identified to facilitate the logistics of the thesis defense. The host should not be the PhD candidate or the research supervisor(s). The host will be part of the discussion between the PhD candidate and the thesis committee and also the discussion amongst the thesis committee. Therefore, if possible, a member of the thesis committee should be asked to be the host of the PhD defense. [The host will act much like a “session chair” at a conference, but will conduct all actions remotely using the Zoom app.]
2. The host will log into the Zoom app at mit.zoom.us by clicking onto “SIGN IN Configure your account”. You will need MIT certificates. [When at the MIT Zoom site, you will see a panoramic view of MIT in the background; this is the correct MIT website to use to schedule the defense.]
3. Once into your account, on the left you will see overall “setting”. Turn off “whiteboard” and turn off “annotations.” Next, click on ‘SCHEDULE A MEETING’ at top right of screen.
4. Enter name of candidate in “Topic” with the Defense Title added in “Optional Description”.
5. Add “require meeting password”- enter password (can use generated password or create your own)
6. Select the following “Meeting Options”
   - Enable join before host
   - Mute participants before entry
   - Breakout room pre-assign
7. By selecting “Breakout room pre-assign” you will be asked to “create room”. Here you will create Breakout Room 1 and edit to be named “thesis committee.” Be sure to “SAVE” your Breakout Room Assignment. [Note: you can add the email address of the thesis committee members in advance, but it is not necessary.]
8. Add the research supervisor email as “Alternative Host.”
9. Send the defense date and time to Janet Fischer at jfischer@mit.edu with the PhD candidate’s name and thesis title; the defense will be posted to the EECS department calendar. The host or candidate will send the meeting ID and URL to participants for invitation to attend the PhD defense. Since a password has been created for the meeting, the password should be sent separately to the invited guests and not by imbedding the password into the Zoom invitation. When sending the Zoom URL/ID invitation, be sure to remove the password if automatically embedded. The defense URL and ID should not be broadcast or posted to social media to avoid “hacking” or “Zoombombing.”
10. To prepare for a “Zoombombing” attack, set up a second Zoom meeting that is identical to the Zoom PhD Defense as a contingency. The “topic” will be “Candidate Name (Contingency)”; a different password should be created/used. Send the contingency meeting URL and ID with password to the candidate and alternative host (research supervisor). In the event of a Zoombombing, the host will be able to invite thesis committee members and attendees to the contingency meeting.

Conducting the Zoom PhD Defense1:

Part 1: Public Oral Presentation and Q&A
   a. The host logs in 5-10 minutes before start of meeting. Select "advanced sharing options" using up-arrow icon next to "Share Screen" at the bottom of the screen. Choose "Only Host" option under "Who can start share when someone else is sharing?"
      (Comment: this allows the host and alternative host to control the share screen, but no one else.)
   b. The candidate logs in a few minutes before start of meeting and puts up the title slide using "Share screen", so that attendees know they are in the correct meeting.
      Suggestion: at the end of the presentation, the candidate can put up a slide that says "Q&A Session".
      The candidate maintains the control of the shared screen in response to questions from the audience.
   c. The public oral presentation and Q&A portion will take place in the main meeting room. As the PhD defense begins, the host will welcome the audience and the committee.
   d. Ask all persons in attendance to mute their computers.
   e. The research supervisor will introduce the PhD candidate. The PhD candidate will give their presentation while using “share screen” so all attendees in the room may see the slides.
   f. Once the talk is over, the host will ask for questions from the audience calling on those audience members with their “hands up” in the Zoom app or by simply allowing an attendee to unmute their screen. After Q&A, the Breakout Room will come into use.

Part 2: Thesis Committee and PhD candidate Q&A
   a. The Zoom meeting host will elect, or click on “Breakout Rooms” from the bottom menu. The breakout room (Thesis Committee) previously created will show up.
   b. The Zoom host will assign the thesis committee members and the PhD candidate to the Thesis Committee breakout room. To do this, select “Assign” and select all committee members and PhD candidate to be moved to the “Thesis Committee” breakout room.
   c. Once every thesis committee member has been assigned to the breakout room, the host will select “Open All Rooms”. [Note: it is important that only one person can act as “host” even though the research supervisor has been added as alternative host. Only the acting host will be able to access the breakout rooms buttons. The alternative host is added as a back-up in the event the host is not able to attend.]
   d. The host will need to join “Thesis Committee” breakout room. Select “Join” next to this option, then confirm. At this point the host, thesis committee and PhD candidate will be alone to continue the discussion.
   e. Once the thesis committee and PhD candidate Q&A has ended, the host should assign the PhD candidate to the main room with the attendees.

1 The PhD candidate is asked to conduct a practice Zoom defense with research supervisor and host in advance to ensure the logistics are understood prior to the actual defense.
Part 3: Thesis Committee Deliberation  
   a. Once the host has assigned the PhD candidate to the main room, the thesis committee will be alone for final deliberations of the thesis defense. [Note: if the thesis committee would like to speak to the PhD candidate again, without audience, the host can assign the PhD candidate to the Thesis Committee breakout room again.]

Part 4: Public Announcement  
   a. When the thesis committee deliberation session has ended, the host will need to close all the rooms. To do so, open up the “Breakout Rooms” menu from the bottom bar, and select “Close All Rooms”. The host will confirm that you would like to return to the main session.  
   b. This will begin the final session where the thesis committee, most likely the research supervisor, will announce their findings of the thesis defense to the PhD candidate and to the audience.  
   c. The host will thank the audience for their attendance and congratulate the new Dr. First Name Last Name (hopefully).

Part 5: Post Defense Administration  
   a. The thesis research supervisor will send an email to Janet Fischer at jfischer@mit.edu with post defense results including: PhD candidate name, date of defense, some information regarding attendees and defense outcome. Also, if possible, please indicate approximate timeframe for thesis submission and check for the final allowed date, depending on degree list of relevance (September, February or May).